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ABSTRACT

Do Beliefs in the Model Minority Stereotype Reduce Attention to Inequality That Adversely Affects Asian Americans?*

We study whether the model minority stereotype about Asian Americans (e.g., hard-working, intelligent) reduces people's attention to inequality that adversely affects Asians. In a nationally representative US sample (N=3,257), we find that around 90% of the participants either moderately or strongly believe that Asians work harder and are more economically successful compared to other ethnic minorities. We then demonstrate that an increase in the model minority belief has a dose-response relationship with people's tendency to overestimate incomes for Asians but not for Whites and Blacks. In a basic cognitive task, people are more likely to see an equal distribution of resources between Asians and people of other races when Asians have less than others by design. Although there is little evidence that a marginal increase in the model minority belief significantly reduces people's attention to inequality that adversely affects Asians in a pattern detection hiring task, we find that people who hold a strong model minority stereotype are only more likely to naturalistically point out unfair hiring practices when Whites are discriminated against. Our results offer new insights into the possible mechanisms behind why many Americans are relatively more apathetic toward Asians' unfair treatment and negative experiences compared to those of other races.

JEL Classification: D63, D91, J15

Keywords: Asian Americans, model minority, stereotype, inequality, attention, redistribution

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1. Introduction

This paper investigates whether holding a positive stereotype about Asian Americans reduces people's attention to inequality and labor market discrimination that adversely affects Asians. Compared to the well-established findings on the harmful effects of negative stereotypes, e.g., lazy and low education, on the hiring and promotion outcomes of other ethnic minorities, such as African Americans, Arab Americans, and Latin Americans, in the economics literature (e.g., Bertrand & Mullainathan, 2004; Rooth, 2010; Lang & Lehman, 2012; Bayer & Rouse, 2016; Haaland & Roth, 2023), much less is understood about the implications of positive stereotypes of Asians in the United States.[1] How could positive stereotypes, such as hard-working and intelligent, be anything but beneficial for Asians? By combining both econometric and experimental approaches across multiple studies, we test whether these generalizations, while possibly well-intended, can potentially cause more harm than good by preventing equal treatment of Asian Americans, especially those from a low-income background.

Asian Americans have faced a long history of institutional and racial discrimination in the U.S. (Soennichsen, 2011; Nakanishi, 2009; Hung, 2004; Santos et al., 2021). Despite this, they are the only ethnic group that consistently earns a higher median income than other ethnic groups, including Whites (Ruggles et al., 2023). The unexpected anecdotes of the socioeconomic success of Asian Americans have led to the term "model minority" being coined and popularized by the U.S. media, which began in the 1960s and continues to persist today[2]. By labeling Asian Americans as the model minority, people who were against the Civil Rights Movement in the 1960s often used it to argue that systemic racial discrimination does not pose a significant barrier to upward

[1] A search of ECONLIT for journal articles with "Asian Americans" in the contents produces 70 published articles since 2000, which is significantly smaller compared to the search for journal articles with "African Americans/Blacks" (7,299 published articles) and "Latin American/Hispanic" (5,357 published articles) in the contents. A few notable, recent exceptions are Hilger (2016) who documented evidence of extraordinary upward mobility achieved by Asians relative to Blacks and Whites in California, and Arcidiacono et al. (2022) who reported evidence on the racial discrimination against Asian Americans in Harvard college admission compared to whites.

[2] For example, there were two articles published in the *New York Times Magazine* and *U.S. News and World Report* in 1966 that portrayed Japanese and Chinese Americans as successful ethnic minority groups in the United States. This is followed by an article in the Fortune magazine on "America's Super Minority" in 1986, a cover story on "those Asian American whiz kids" published in the *Time* magazine in 1987, and an article "in defense of stereotype" in Forbes in 1997. In addition, movies and televisions continue to stereotype Asian characters as over-achievers, academically and economically (Besana et al., 2019).

social mobility and that anyone, regardless of ethnic background, can achieve economic success if they work hard enough (Hsu, 2015; Chou & Feagin, 2015).

However, despite its positive connotations, the model minority stereotype of Asians in the U.S. -- e.g., diligent, hard-working, intelligent, obedient – could potentially do more harm than good to Asian Americans. One hypothesis, based on existing literature in sociology and legal studies, is that because the model minority theory oversimplifies the complex issues of race and class, the lived experience of many Asian Americans is at risk of being disparaged (McGowan & Lindgren, 2003; Museus & Kiang, 2009; Chou & Feagin, 2015). Individuals who hold a strong model minority belief may not realize that despite having the highest median income among all ethnic groups, Asian Americans also have the largest income gap between the rich and the poor (Kochhar & Cilluffo, 2018; Vo et al., 2023; Banerjee, 2022). They may also be less aware of the fact that around 10% of Asian Americans live in poverty in 2022, with the poverty rates vary significantly across origin groups, e.g., Burmese (19%) and Hmong Americans (17%) were among the Asian origin groups with the highest poverty rates (Tian & Ruiz, 2024). As a result, the prevalence of model minority stereotypes can lead to a lack of public support for government aid programs that target struggling Asians. It can also lead to a more widespread acceptance of racial microaggressions (Kim et al., 2021) and overall feelings of apathy towards Asian Americans.

Our main hypotheses are that the model minority stereotype selectively shapes people's attention to be more naturally aware of Asian's economic successes and less likely to notice inequality and discrimination against Asians naturalistically. Depending on how widespread these positive stereotypes about Asians are in the U.S. today, the economic consequences of holding such a belief for Asian Americans' livelihood can be sizeable, long-lasting, and intergenerational.

We conduct five large-scale, pre-registered studies (https://osf.io/4a2km/) with U.S. samples, each of which addresses a different aspect of the model minority myth. Study 1 examines public attention in the U.S. to the suffering of Asian Americans, in comparison to those of other racial minorities, by using state-level data from Google Trends between January 2017 and July 2022. The Google Trends search index is an appropriate and widely used proxy for public interest. We adopt a difference-in-differences (DiD) approach to compare the Google daily search indices

of specific social movements, i.e., StopAsianHate, BlackLivesMatter, and AllLivesMatter, after each event occurred.[3]

Study 2 analyzes data from a U.S. nationally representative sample (N=3,257) to understand the socioeconomic predictors of holding model minority stereotypes. We conducted a principal factor analysis to extract two factors from multiple positive statements about Asians, which were used by Yoo et al. (2010) to represent the model minority stereotypes in our study. The first factor is "*Asians work harder and are more successful compared to other ethnic minorities.*" The second one is "*Asians are less discriminated against compared to other ethnic minorities.*" We then randomly divided Study 2's sample into three equal subsamples to be recruited for Studies 3-5 two weeks later.

Study 3 examines whether believers of the model minority stereotypes are more likely to overestimate the economic status of Asian Americans compared to that of White and Black Americans. Study 4 utilizes the basic social cognition (go/no go) experiment (Waldfogel et al., 2021)[4] with AI-generated photos to detect whether individuals who hold stronger model minority stereotypes are less attentive to inequality that adversely affects Asians and those of other races in the economic resource allocation. Finally, in a randomized experiment in which subjects are shown different recruitment results of hypothetical applicants diverse in race, gender, GPA, and hometown, Study 5 tests whether individuals with stronger model minority beliefs are less likely to notice evidence of discrimination in the labor market against a specific race.

In Study 1, we find that the increase in public attention in the U.S. to the BlackLivesMatter movement, proxied by Google searches, was substantially larger and more persistent than that to the StopAsianHate movement after the occurrence of each corresponding event. The results show substantially lower public interest in the tragedies experienced by Asians in the U.S., which we use to motivate Studies 2-5.

Study 2 shows that the majority – more than 90% -- of the U.S. sample either moderately or strongly believe that Asians work harder and are more successful than other ethnic minorities.

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[3] The events in questions are the murder of George Floyd on May 25, 2020, for BlackLivesMatter and the massacre of Asian workers in Atlanta, Georgia on March 16, 2021, for StopAsianHate. AllLivesMatter was more of a response to BlackLivesMatter than a social movement of its own.

[4] Waldfogel et al. (2021) found that social egalitarians are better at detecting inequality when it affects societally disadvantaged groups (e.g., the poor, women, racial minorities), but not when it affects societally advantaged groups (e.g., the rich, men, Whites). However, they did not distinguish between Latinos, Asians, and Blacks in their definition of racial minorities. They also did not use photos to represent people from different races in their study. They used words to describe people's races in their experiments.

We also uncover the composition of model minority believers. For example, we show that older generations (aged > 45) are significantly more likely to think that Asians work harder and are more successful than other ethnic minorities, but not that Asians are less discriminated against compared to other ethnic minorities. Foreign-born individuals, Republicans, and people who support social hierarchy and want their in-group to be superior to out-groups tend to hold both model minority stereotypes about Asians. Moreover, Asians are more likely than Whites to believe that Asians work harder and are more successful but disagree that Asians are less discriminated against. However, Blacks are significantly more likely than Whites to think that Asians are less discriminated against relative to other racial minorities.

Study 3 shows a positive dose-response correlation between model minority beliefs and the extent of overestimation of Asian Americans' incomes at different levels of income distribution. In Study 4, we discover that people tend to see equal distributions of resources between Asians and people of other races even when Asians have less by design. There is, however, little evidence that this response bias significantly increases with the model minority stereotype. In Study 5, we find some evidence that participants who hold strong model minority beliefs are more likely to notice discrimination against Whites in the randomized treatment where White candidates are discriminated against in the labor market. In other words, Study 5's findings suggest that while people who hold strong model minority stereotypes may not be relatively less aware of discrimination against Asians, they tend to be naturalistically aware of discrimination against Whites.

Our combined studies suggest that people who hold a relatively stronger model minority stereotype are more likely to overestimate Asian American's economic successes. While there is little evidence of an intensive margin effect in which a marginal increase in the model minority beliefs reduces people's attention to inequality that adversely affects Asians, we have suggestive evidence that they may be more likely to notice discrimination against White people than those of other races. We believe our results partially explain Americans' weaker interest in the adverse experiences of Asian Americans relative to those of different racial minorities[5]. Our results are also consistent with the history of white supremacists using the model minority stereotype to not only

[5] For example, 19 programs under the San Francisco Mayor's Office of Community Development had undergone budget cuts in the March 2008 because of a budget deficit. Of those programs, the three most affected ones are those that provide services to low-income Asian communities (Chin, 2008).

perpetuate the idea that other minority groups can achieve the same success as Asians through hard work but also as a reason against affirmative action that tends to disfavor both Asians and Whites (Wu, 2016).

Our study also contributes to the lack of systematic, large-scale research on the economic implications of being Asian Americans. While there is a growing literature in psychology and sociology on the potential consequences of model minority stereotypes, these studies tend to focus on *ad hoc* issues, such as attitudes toward affirmative action policies and performance in a quantitative test (Cheryan & Bodenhausen, 2000; Yi & Todd, 2021) and the "bamboo ceiling" phenomenon in which East Asians (though not South Asians) are underrepresented in leadership positions in the U.S. (Lu et al., 2020). Many of these studies also tend to be based on small samples of university students or unique samples of CEOs of S&P 500 companies. To the best of our knowledge, there have been only two studies in recent years that focused on the economic consequences of being Asian in the U.S. The first is a study by Hilger (2016), which documented evidence of extraordinary upward mobility achieved by Asians relative to Blacks and Whites in California. The second is a study by Arcidiacono et al. (2022), which provided evidence for racial discrimination against Asian Americans in Harvard college admissions compared to White applicants. Currently, the economics literature is small, and the extent of influences of model minority beliefs in economics is imperfectly understood.

More broadly, the current study contributes to the literature on social perceptions and their consequences (e.g., Bertrand, 2020; Bertrand et al., 2015, 2021; Eberhardt et al., 2023). It is also related to studies that utilized online experiments to understand how people of different races attribute racial inequalities.[6] It also adds to the existing theoretical framework about how rationales provide arguments that support dissenters' causes and hence increase the public expression of dissent, which would have otherwise been stigmatized without the availability of rationales (Bursztyn et al., 2023).[7]

[6] For example, Alesina et al. (2021) showed that Democrats and Blacks tend to attribute racial inequities to adverse past and present circumstances and prefer race-targeted and general redistribution policies. However, White Republicans are inclined to attribute racial disparities to individual actions and less support those types of redistribution policies.

[7] Our game model in Appendix B is in the spirit of Bursztyn et al.'s (2023) framework: the model minority stereotypes play the role of rationales and justify and hence lead to Americans' indifference to the suffering and neglect to discrimination experienced by Asian Americans. This argument is also supported by our empirical analyses.

2. Google Trends analysis (Study 1)

The first study empirically investigates a potential heterogeneity in the public interest in the struggles of various racial minority groups across different major social events. Specifically, we exploit the Google Trends search index to compare public attention to different race-related slogans: StopAsianHate, BlackLivesMatter, and AllLivesMatter.

Figure 1 illustrates the raw data of public attention, proxied by the Google Trends indicators, to the three hashtags between January 2020 and January 2022. Note that the Google Trends data are normalized across the three hashtags, which means that we can directly compare them with one another. Immediately after the death of George Floyd in May 2020, we can see that the BlackLivesMatter movement received significant public attention, and the AllLivesMatter trend soon followed as a response to this movement. The StopAsianHate movement, which was initiated in March 2021 during the COVID-19 pandemic, received a surge in Google searches following the mass shooting of eight people, including six Asian women, who were shot to death in Atlanta. While the spikes of all three Google searches dropped dramatically after each respective event, the spikes of searches for StopAsianHate were, by far, the smallest in magnitude – even smaller compared to AllLivesMatter, a trend that was not even a social movement of its own – and disappeared much faster compared to the searches for BlackLivesMatter. These figures thus provide one of the first and most recent raw data evidence collected at the national level of significantly less public attention towards tragic events experienced by Asians compared to other races.

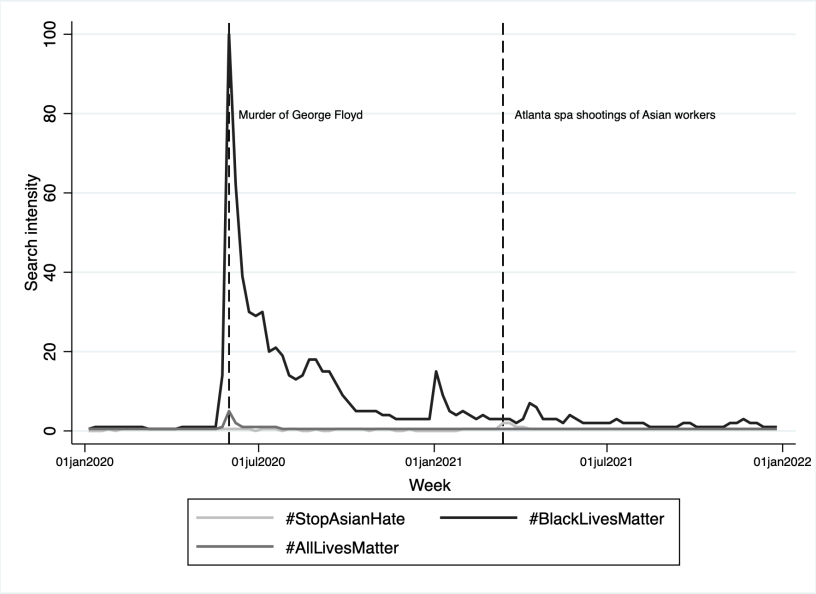


Figure 1: Google Trends searches for different social movement. The vertical axis shows the average searches (on a scale from 0 to 100) across all US states in the days leading to and following the murder of George Floyd (May 25th, 2020) for *BlackLivesMatter* and *AllLivesMatter*, and the Atlanta spa shootings of Asian workers (March 16th, 2021) for the *StopAsianHate*.

To systematically examine the effects of different movements on the Google Trends indicator of daily searches, we also conduct a difference-in-differences (DiD) analysis with the state-by-movement fixed effects, year-by-month fixed effects, and state-by-movement-specific quadratic time trends. We look at relative changes in the Google Trends indicator after a specific movement was initiated in comparison to those after the launch of the reference movement specified below.

The model for the analysis is written as follows

$$y_{ist} = \alpha_{is} + \alpha_t + \gamma_{is} t + \delta_{is} t^2 + \beta_1 Mvmt_{it} + \\ + \beta_2 BLM_i \times Mvmt_{it} + \beta_3 SAH_i \times Mvmt_{it} + \epsilon_{ist} \quad (1)$$

in which *i* denotes the three movements of interest, *s* stands for states and the District of Columbia of the United States, and *t* (January 2017-July 2022) refers to calendar year by month. *y* represents the Google Search of *i* movement in state *s* and time *t*, which is the scaled daily frequency of the term of interest, i.e., "AllLivesMatter (ALM)," "BlackLivesMatter (BLM)," and "StopAsianHate (SAH)," respectively, being searched for, relative to the maximal number of daily searches for it on Google in the U.S.

Furthermore, *Mvmt* indicates a dummy variable for the period after a specific movement was initiated. Particularly, *Mvmt* changes from 0 to 1 after April 2020 concerning BLM and ALM, and after February 2021 for SAH. Please note that for each state, we observe a separate Google Trends indicator for every single movement over time.

The parameter β_1 measures the effect of the reference racial movement, i.e., AllLivesMatter following the murder of George Floyd, on the relevant Google searches . β_2 represents the effect of the BlackLivesMatter movement on its corresponding Google searches relative to the effect of AllLivesMatter. β_3 represents the counterpart of StopAsianHate after the mass shooting in Atlanta. α_{is} is a vector of state by movement fixed effects, and α_t is another vector of calendar year by month fixed effects. These two sets of fixed effects separately account for time-invariant but regional-and-movement-specific differentials, and time variations common at the national level, respectively. In addition, γ_{is} and δ_{is} represent the state-by-movement-specific quadratic time trends, capturing relatively flexible time variations in unobservables at the state by movement level. Finally, ϵ_{ist} is an error term. In our analysis, we use robust standard errors to alleviate potential issues of serial correlation and heteroskedasticity, and we also cluster standard errors at the movement level.

Table 1: The effects of racial movements on their corresponding Google Trends search index – DiD estimates

Google Trends	(1)	(2)
Post-movement	0.477***	0.477
	(0.085)	(0.607)
BLM×Post-movement	33.422***	33.422***
	(0.482)	(0.000)
SAH×Post-movement	6.728***	6.728
	(0.740)	(6.286)
Observations	6579	6579

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. The Google Trends indicator is the scaled daily frequency of the term of interest, i.e., "All Lives Matter," "Black Lives Matter," and "Stop Asian Hate," respectively, being searched for, relative to the maximal number of daily searches for it on Google in the U.S. The regressions use "All Lives Matter" as the reference movement. Column 1 reports the estimates with the heteroskedasticity and autocorrelation consistent, or HAC, robust standard errors; column 2 shows the estimates with standard errors clustered at the movement, i.e., treatment, level. Only the relevant parameter estimates are presented. Covariates containing state by movement fixed effects, year by month fixed effects, and state by movement-specific quadratic time trends are included in every model but not shown for parsimony. Standard errors are in parentheses.

Table 1 reports Eq.1's estimates. Column (1) adopts the heteroskedasticity and autocorrelation consistent, or HAC, robust standard errors, and column (2) clusters standard errors

at the movement level. The results show that following the respective movement, daily searches for BLM were approximately 33% points larger compared to those for ALM. Compared to ALM, the searches for SAH were around 7% points larger. However, when clustering standard errors at the movement level, column (2) shows that public attention to StopAsianHate was statistically insignificantly different from that of AllLivesMatter and significantly smaller than that to BlackLivesMatter following their respective social movement.[8]

Study 1 thus provides evidence at the aggregated level that Americans engaged considerably more with the BlackLivesMatter trend than the StopAsianHate trend. This gap in societal interest suggests a divergence of public attention to adverse experiences of different racial minority groups, which we may partially attribute to the strength of the model minority stereotype held among Americans. We investigate this possibility further by turning to online experiments in Studies 2-5.

3. The socioeconomic determinants of model minority stereotypes (Study 2)

To better understand the extent of model minority beliefs in the United States and how these beliefs can potentially shape people's attention to inequality, we recruited a nationally representative sample of U.S. residents (N=3,300) based on gender, ethnicity, and age through Prolific.com in January 2024. Participants were compensated $2 to complete a 10-minute survey about attitudes towards Asian Americans. Participants had to complete the model minority myth (MMM) questionnaire (Yoo et al., 2010), which asked respondents to state their level of agreement with statements such as "*In comparison to other racial minorities, Asian Americans have stronger work ethics*" and "*Asian Americans are more likely to persist through tough situations*", the social dominance orientation questionnaire (Ho et al., 2015), and a standard socio-demographic questionnaire, including questions about the participant's age, gender, ethnicity, income, education, employment status, country of birth, and political affiliation; see Table 1A in the Appendix for the descriptive statistics of these variables. Of those, 3,257 participants completed the survey questions and passed the attention check.

[8] The estimated additive effect of SAH is significantly different from that of BLM at 1% level in column (1) and at 5% level in column (2).

The Cronbach's alpha for the MMM items is 0.911, which indicates good reliability among the composite scores. To minimize the possibility of individuals' social egalitarian ideology confounding the MMM results, we also asked the participants to complete the social dominance orientation (SDO) questionnaire (Ho et al., 2015) to be included as a control. The Cronbach's alpha for the SDO items is 0.925. The correlations between MMM1 and MMM2 factor variables is close to zero (0.012) by design. The correlation between MMM1 and SDO is small at 0.23, while the correlation between MMM2 and SDO is also small at 0.24. The full list of items in the MMM and SDO scales can be found in Appendix A. [9]

To reduce dimensionality of these multi-item measures, we performed a principal factor analysis (PFA) on MMM and SDO. However, since both MMM and SDO are measured on Likert scales, the standard form of PFA is not appropriate here. To circumvent this problem, we obtained a polychoric correlation of MMM and SDO variables separately in the first-stage (Lee et al., 1995) before performing the PFA in the second-stage. The PFA method produced two latent factors for MMM that have eigenvalues greater than 1, and one latent factor for SDO that has an eigenvalue greater than 1; see Tables 2A and 2B in the Appendix for the exploratory factor analysis based on both the polychoric correlation and the polychoric correlation matrix.

The first MMM principal factor (MMM1), which weighed more heavily on questions 1-10 in the MMM questionnaire, is termed "*Asians work harder and are more successful compared to other ethnic minorities*" (eigenvalue = 6.975). The second MMM principal factor (MMM2), which weighed more heavily on questions 11-15 in the MMM questionnaire, is termed "*Asians are less discriminated against compared to other ethnic minorities*" (eigenvalue = 3.486). Higher values in the SDO principal factor (eigenvalue = 5.277) represent support for social hierarchy and a desire for the in-group to be superior to out-groups.

[9] See Figure 1A in the Appendix for the distribution of each MMM item.

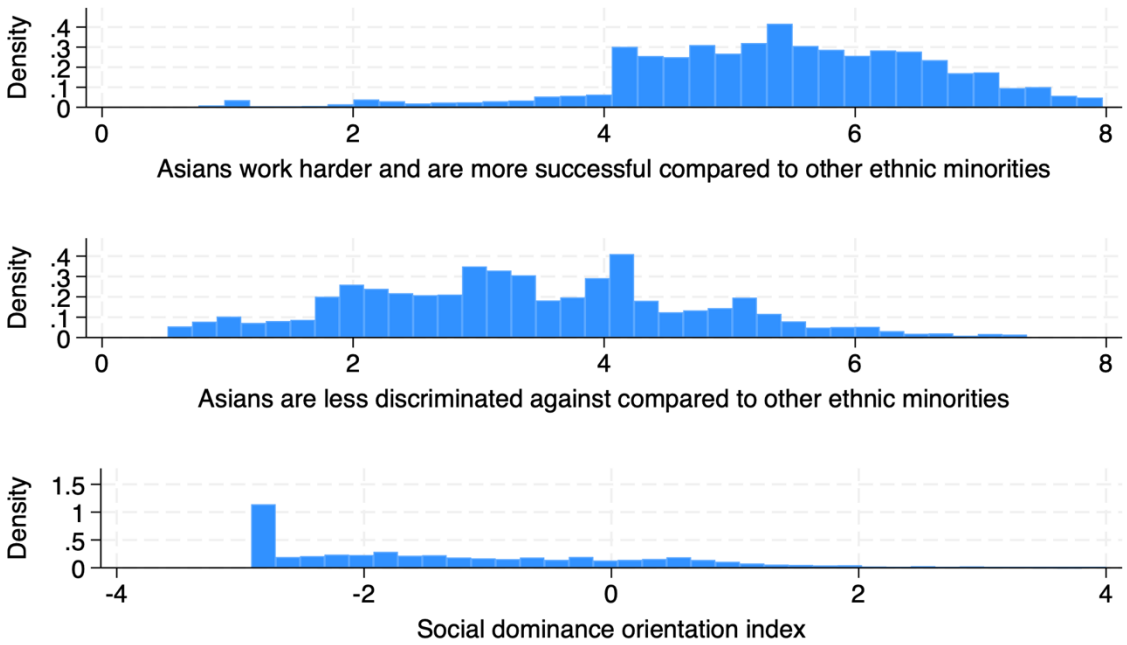


Figure 2: Histograms of unstandardized principal factors for model minority myths and social dominance orientation. Principal factors are produced using exploratory factor analysis based on polychoric correlation (Lee et al., 1995). Exploratory factor analysis on 15 model minority myths (MMM) questions produce two principal factors. Factor 1 represents "Asians work harder and are more successful compared to other ethnic minorities". Factor 2 represents "Asians are less discriminated against compared to other ethnic minorities". Applying the same exploratory factor analysis on the social dominance orientation (SDO) index produces only one principal factor. For MMM, higher values represent higher levels of agreement with the statements, i.e., 1 = strongly disagree, …, 7 = strongly agree. For SDO, higher values represent higher levels of support for social hierarchy and the extent to which they desire their in-group to be superior to out-groups.

Figure 2 plots the histograms of these factor variables, none of which are normally distributed. All skewness tests produced *p*-values of 0.000, which rejects the null hypothesis of normal distribution. There is a negative skewness in the MMM1 factor, and a positive skewness in the MMM2 and SDO factors. In short, there is evidence that most people in the U.S. hold a moderate to strong belief that Asians work harder and are more successful compared to other ethnic minorities. The average score for the MMM1 factor is 5.4, with 91% scored higher than four. However, perhaps due to the widespread discrimination against Asian Americans during the COVID-19 pandemic, more people do not believe that Asians face less discrimination than people of other ethnic minorities. The average score for the MMM2 factor is 3.4, with 33% scored higher than four.

As part of a validity check on the derived principal factors, we investigate the structure of the MMM equations by regressing each respective MMM factor on respondents' socio-demographic statuses using ordinary least squares. We report the results in Table 2. For ease of

interpretation, we standardize the MMM and SDO variables to have zero mean and a standard deviation of 1 in all our analyses going forward.

Table 2: Predictors of model minority myths

	Asians work harder and are more successful (MMM1)	Asians work harder and are more successful (MMM1)	Asians are less discriminated against (MMM2)	Asians are less discriminated against (MMM2)
Female	0.0125	0.0450	-0.176***	-0.140**
	(0.0332)	(0.0334)	(0.0455)	(0.0442)
Non-binary/third gender	-0.267	-0.198	-0.171	-0.0947
	(0.190)	(0.179)	(0.155)	(0.142)
Prefer not to say	-0.0658	0.0497	-0.485	-0.357
	(0.397)	(0.378)	(0.325)	(0.340)
Gender: Other	0.269	0.287*	0.495**	0.515**
	(0.142)	(0.136)	(0.146)	(0.151)
Age>=25 & age<30	0.173*	0.153*	0.161*	0.139*
	(0.0674)	(0.0667)	(0.0664)	(0.0650)
Age>=30 & age<35	0.127	0.125	0.0807	0.0783
	(0.0894)	(0.0890)	(0.1000)	(0.0988)
Age>=35 & age<40	0.146	0.146	0.104	0.104
	(0.0962)	(0.0940)	(0.0610)	(0.0622)
Age>=40 & age<45	0.128	0.127	0.0237	0.0231
	(0.100)	(0.0994)	(0.0829)	(0.0840)
Age>=45 & age<50	0.207*	0.202*	0.0521	0.0460
	(0.0965)	(0.0988)	(0.0647)	(0.0662)
Age>=50 & age<55	0.213*	0.203*	-0.000721	-0.0115
	(0.0827)	(0.0827)	(0.0763)	(0.0764)
Age>=55 & age<60	0.358***	0.330***	0.119	0.0888
	(0.0849)	(0.0850)	(0.0839)	(0.0793)
Age>=60 & age<65	0.268**	0.251**	0.0750	0.0570
	(0.0795)	(0.0818)	(0.0727)	(0.0704)
Age>=65 & age<70	0.314***	0.296***	0.0907	0.0707
	(0.0747)	(0.0774)	(0.0723)	(0.0771)
Age>=70	0.364***	0.352***	0.163	0.150
	(0.0772)	(0.0786)	(0.116)	(0.114)
Asian	0.383***	0.356***	-0.352***	-0.381***
	(0.0773)	(0.0745)	(0.0883)	(0.0853)
Black	-0.101	-0.119	0.447***	0.427***
	(0.0604)	(0.0597)	(0.0517)	(0.0514)
Mixed	0.0357	0.0281	-0.0855	-0.0939
	(0.112)	(0.114)	(0.114)	(0.117)
Other	-0.122	-0.144	0.00204	-0.0231
	(0.131)	(0.128)	(0.180)	(0.175)
$10,000-$19,999	-0.0926	-0.0887	0.0288	0.0332
	(0.118)	(0.124)	(0.124)	(0.122)
$20,000-$29,999	-0.0663	-0.0488	-0.120	-0.100
	(0.0868)	(0.0901)	(0.0994)	(0.0979)
$30,000-$39,999	-0.0558	-0.0531	0.0649	0.0679
	(0.105)	(0.105)	(0.103)	(0.103)
$40,000-$49,999	0.00525	0.0113	0.0461	0.0528
	(0.0965)	(0.0953)	(0.0989)	(0.0985)
$50,000-$59,999	-0.00260	-0.0144	0.119	0.107
	(0.111)	(0.113)	(0.0905)	(0.0854)

$60,000-$69,999	-0.0777	-0.0946	0.0726	0.0539
	(0.110)	(0.108)	(0.100)	(0.0954)
$70,000-$79,999	0.0628	0.0391	0.0806	0.0544
	(0.0983)	(0.0983)	(0.100)	(0.0931)
$80,000-$89,999	0.205*	0.196	0.186	0.176
	(0.100)	(0.102)	(0.114)	(0.111)
$90,000-$99,999	0.0708	0.0487	0.238*	0.214*
	(0.114)	(0.113)	(0.105)	(0.0991)
$100,000-$149,999	0.124	0.104	0.0974	0.0749
	(0.110)	(0.109)	(0.107)	(0.0969)
$150,000 or more	0.0944	0.0573	0.0702	0.0292
	(0.104)	(0.102)	(0.120)	(0.115)
Prefer not to say	-0.195	-0.202	0.260*	0.252*
	(0.179)	(0.176)	(0.115)	(0.110)
Married	0.00399	0.00165	0.00985	0.00727
	(0.0528)	(0.0545)	(0.0599)	(0.0565)
Cohabiting	-0.0160	-0.00213	-0.0971	-0.0817
	(0.0719)	(0.0703)	(0.0722)	(0.0680)
Divorced	-0.0143	-0.0144	0.0419	0.0418
	(0.0780)	(0.0755)	(0.0711)	(0.0686)
Separated	-0.202	-0.200	0.0373	0.0392
	(0.179)	(0.176)	(0.165)	(0.177)
Widowed	0.0941	0.105	-0.200	-0.188
	(0.0910)	(0.0855)	(0.110)	(0.110)
Prefer not to say	-0.0638	-0.204	0.358	0.203
	(0.587)	(0.579)	(0.339)	(0.325)
High school graduate	-0.166	-0.140	-0.174	-0.145
	(0.232)	(0.245)	(0.207)	(0.191)
Some undergraduate	-0.177	-0.157	-0.203	-0.180
	(0.240)	(0.250)	(0.197)	(0.182)
Completed undergraduate	-0.162	-0.140	-0.144	-0.119
	(0.228)	(0.242)	(0.206)	(0.192)
Some graduate	-0.0792	-0.0798	-0.0855	-0.0862
	(0.241)	(0.256)	(0.196)	(0.181)
Completed graduate	-0.217	-0.183	-0.178	-0.140
	(0.236)	(0.247)	(0.199)	(0.185)
Other	-0.0615	-0.0133	-0.161	-0.107
	(0.330)	(0.331)	(0.302)	(0.286)
Full-time employment	-0.0146	-0.00116	-0.0805*	-0.0657
	(0.0380)	(0.0344)	(0.0392)	(0.0384)
Part-time employment	-0.0312	-0.0313	-0.0000634	-0.000238
	(0.0600)	(0.0593)	(0.0556)	(0.0524)
Unemployed	0.0796	0.101	-0.0289	-0.00556
	(0.0648)	(0.0656)	(0.0722)	(0.0714)
Foreign-born	0.140*	0.112*	0.127*	0.0960
	(0.0582)	(0.0555)	(0.0625)	(0.0603)
Republican	0.484***	0.290***	0.356***	0.142**
	(0.0391)	(0.0396)	(0.0483)	(0.0465)
Independent	0.179***	0.110**	0.133**	0.0567
	(0.0351)	(0.0350)	(0.0390)	(0.0390)
Prefer not to say	-0.161	-0.254	0.117	0.0142
	(0.216)	(0.207)	(0.184)	(0.177)
No political affiliation	0.0270	-0.0119	0.0416	-0.00130
	(0.0594)	(0.0549)	(0.106)	(0.103)
Social dominance orientation		0.172***		0.189***
		(0.0234)		(0.0171)

Constant	-0.0115	-0.00388	-0.166	-0.158
	(0.231)	(0.246)	(0.222)	(0.209)
Observations	3257	3257	3257	3257
Adjusted R^2	0.061	0.084	0.067	0.094

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Dependent variables are standardized to have a mean of 0 and a standard deviation of 1. Reference groups: Age: 21-24; Ethnicity: White; Income: less than $10,000 per annum; Marital status: Single; Education: Some high school; Employment status: Not in the labor force; Country of birth: born in the United States; Political affiliation: Democrat. All regression models include state fixed effects. Standard errors clustered at the state level are in parentheses.

Looking across Table 2's columns, we find that people over the age of 45 are significantly more likely to believe that Asians work harder and are more successful than other ethnic minorities, but not that Asians are less discriminated against compared to other ethnic minorities. Compared to White respondents, Asian respondents tend to hold a significantly stronger belief that Asians work harder and are more successful than other ethnic minorities. They are also more likely to disagree that Asians are less discriminated against compared to other ethnic minorities. In contrast, Black respondents are more likely than White respondents to agree that Asians are less discriminated against compared to other ethnic minorities. There is little evidence to suggest that education, marital status, employment status, and income strongly predict either dimension of positive racial stereotypes. There is, however, some evidence that foreign-born individuals, relative to U.S.-born individuals, hold a stronger belief that Asians are more successful and less discriminated against compared to other ethnic minorities. As anticipated, in comparison to democrats, republicans are more likely to strongly believe in both MMM dimensions. Finally, the beliefs that Asians are more successful and less discriminated against tend to be held more strongly among those who scored high on SDO, i.e., those who believe that one group should dominate in any given society.

Overall, we can see that these socio-demographic predictors of each MMM factor are neither surprising nor widely inconsistent with our prior understanding of what predicts the model minority beliefs. Hence, we can be confident that the two MMM factors capture people's true attitudes towards Asian Americans. We then use these factors as the central variables in the subsequent analyses.

Following the data collection in the first-stage of Study 2, we randomly divided our U.S. nationally representative sample (*N*=3,257) into three groups. We then reinvited these same individuals **two weeks later** to participate in one of the following three studies. The two-week gap

between Study 2 and Studies 3-5 was to minimize any potential experimenter demand effect that might arise from subjects suspecting the aim of the experiments (Zizzo, 2010).

4. Model minority stereotypes and income estimation (Study 3)

Study 3 investigates the extent to which individuals' model minority beliefs about Asian Americans predict their estimation of Asians' economic situation in the United States. Of the 1,085 individuals who we invited back to take part in Study 3, 875 (80.6%) returned. After we dropped participants who did not complete the survey questions and/or failed the attention check, 803 individuals remained. Participants were paid US$2 for their effort and time.

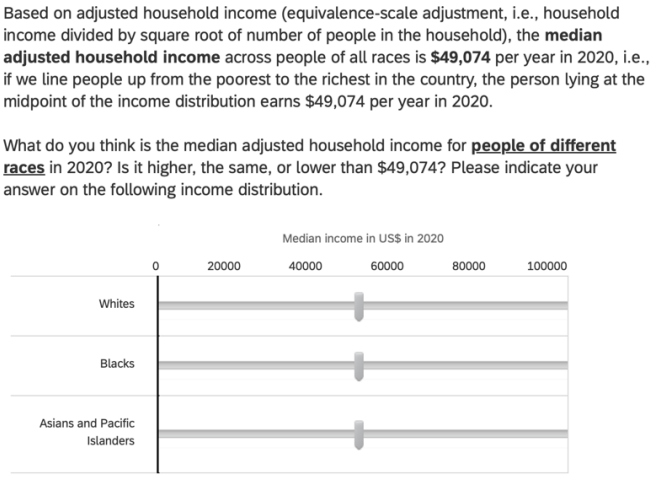


Figure 3: Estimation of income by ethnicity. We also asked participants to estimate the bottom 10% income, the top 10% income, and the median income by occupation. The true median/bottom 10%/top 10% incomes come are derived from the 2021 American Community Survey data (Ruggles et al., 2023).

We first provided participants with the accurate median/bottom 10%/top 10% adjusted annual household income of Americans in 2020 **across all races**, which we obtained from the 2021 American Community Survey data (Ruggles et al., 2023). We then asked participants to estimate the median/bottom 10%/top 10% adjusted annual household income in 2020 for **each race**; see Figure 3 for the median income example.

We calculated the gap between participants' estimations of income at different levels of the income distribution for Asians, Whites, and Blacks, x_i, and the actual corresponding income taken from the 2021 American Community Survey, $\tilde{x}_i$, where i represents the ethnicity of the income

level being evaluated, i.e., Asians, Whites, and Blacks. If $x_i - \tilde{x}_i > 0$, we have an overestimation of the true income for ethnicity i, and underestimation if $x_i - \tilde{x}_i < 0$. We also run the same calculation for participants' guesses of the average American's income estimations at the various levels of the income distribution for Asians, Whites, and Blacks.[10]

Looking at the raw data, we find that the average participant estimated Asian's median income to be slightly lower than White's median income ($Mean_{median}^{Asian} =$ \$56,686.17; $SD_{median}^{Asian} =$ \$11,933.40; $Mean_{median}^{White} =$ \$58,979.04; $SD_{median}^{White} =$ \$9,973.45; t-test of equality = 5.579, $p < 0.000$). These two estimates are both significantly larger than the estimated median income for Blacks ($Mean_{median}^{Black} =$ \$40,696.12; $SD_{median}^{Black} =$ \$9,370.36).[11]

What about participants' estimation of the income gap between the rich (top 10%) and the poor (bottom 10%)? On average, participants estimated the income gap to be largest among Whites ($Mean_{gap}^{White} =$ \$135,908.5; $SD_{gap}^{White} =$ \$21,928.43), followed by Asians ($Mean_{gap}^{Asian} =$ \$126,704.1; $SD_{gap}^{Asian} =$ \$23,729.78) and Blacks ($Mean_{gap}^{Black} =$ \$104,494.7; $SD_{gap}^{Black} =$ \$224,10.83). We can reject the null hypothesis of equality for each pair of income gaps. These estimated income gaps are different from the actual income gaps, which were largest among Asians (\$145,879), followed by Whites (\$115,030) and Blacks (\$83,833). Hence, participants underestimate the extent of income inequality experienced by Asians, on average.

[10] We hypothesized in our pre-registration that participants would estimate that the median income is higher for Asians than for Whites and Blacks, that participants would underestimate the gap between the top and the bottom 10% incomes for Asians, but not for Whites and Blacks, and that participants who exhibit higher levels of model minority beliefs will overestimate the median income of Asians and underestimate the income inequality of Asians, compared to those who exhibit lower levels of model minority perception. We also predicted that participants who exhibit higher levels of model minority perception will also think that the average American will overestimate the median income of Asians and underestimate the income inequality of Asians, compared to those who exhibit lower levels of model minority perception. These results are reported in Figure 1A in the Appendix.

[11] As for the true values, the 2020 median adjusted annual household incomes were \$51,392 for Whites (*N*=14,706,798), \$34,932 for Blacks (*N*=2,037,247), and \$61,667 for Asians (*N*=1,354,574).

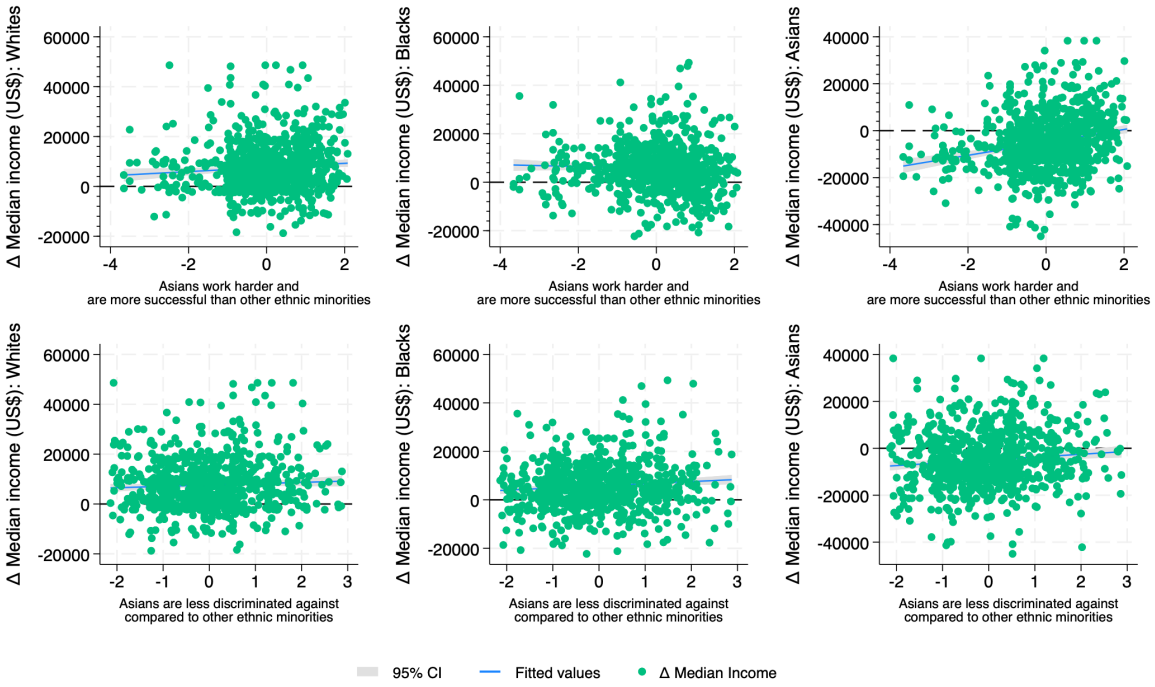


Figure 4: Scatter plots of delta median income by race and the model minority attitudes. Delta (Δ) median income represents the individual's estimated median income *minus* the actual median income reported in the 2021 American Community Survey (ACS). The actual median incomes are $51,392 for Whites (N=14,706,798), $34,932 for Blacks (N=2,037,247), and $61,667 for Asians & Pacific Islanders (N=1,354,574). Each dot represents each participant in the sample (N=829). There is a clear positive relationship between the delta median income for Asians and the belief that Asians work harder and are more successful than other ethnic minorities (top right-hand corner). In addition, individuals tend to more strongly overestimate the median income for both Whites and Blacks, compared to Asians.

We next ask whether individuals who exhibit stronger model minority beliefs are more likely to overestimate Asians' median income. Figure 4 demonstrates a more positive and robust correlation between MMM1 ("Asians work harder and are more successful") and delta median income – namely the difference between the median income estimates and the actual median income – for Asians ($\rho = 0.237$), compared to Whites ($\rho = 0.085$) and Blacks ($\rho = -0.041$). These numbers provide raw data evidence that people who strongly believe positive stereotypes about Asians are more likely to overestimate the median income of Asians. Comparatively, the relationship between MMM2 ("Asians are less discriminated against") and delta median income is similar in size across races: Asians ($\rho = 0.101$), Whites ($\rho = 0.054$), and Blacks ($\rho = 0.095$), which makes sense as MMM2 is a less relevant component to Asians' economic success than MMM1.

To formally identify correlations between model minority beliefs and income judgments, we estimate the following regression equation:

$$\Delta Y_i = \alpha + \beta_1 MMM1_i + \beta_2 MMM2_i + \beta_3 SDO_i + X_i'\gamma + \theta_s + \varepsilon_i, \qquad (2)$$

Where $i = 1, \ldots, N$ denotes respondents; ΔY_i, the delta (median, top 10%, or bottom 10%) income, is the difference between individual i's estimated income and actual corresponding income obtained from the 2021 American Community Survey; $MMM1_i$ is the standardized principal factor representing "Asians work harder and are more successful;" $MMM2_i$ is the standardized principal factor representing "Asians are less discriminated against;" SDO_i is the standardized principal factor representing social dominance orientation; X_i' is a vector of personal characteristics; θ_s represents state fixed effects; and ε_i is the random error term. In addition, given the attrition from Study 2 to 3, we use inverse probability weighting obtained from the attrition regression (Table 18A in the Appendix) as the probability weight to correct for the missing data in the analysis. We estimate Eq.(2) using OLS with robust standard errors clustered at the state level. We display the estimated coefficients for the different types of estimated income for different races in Figure 5.

An increase in MMM1 is associated with an increase in delta median income for Asians, but not for whites. The estimated partial correlation is sizeable; a one standard deviation increase in MMM1 is associated with an increase in Asians' median income delta by \$2,584.5 (*S.E.*=\$394.9; $p < .000$) compared to the delta for Whites at \$803.4 (*S.E.*=\$426.9; $p = .066$). Interestingly, an increase in MMM1 is associated with a statistically significant decrease in Blacks' delta median income of \$805.9 (*S.E.*=\$329.4; $p = .018$). See Table 4A in the Appendix for the regression estimates.

Holding other things constant, a one standard deviation increase in MMM2 is associated with an average increase in Asians' delta median income of \$1,418.6 (*S.E.*=\$484; $p = .005$). In contrast, there is little statistical evidence that Whites' and Blacks' delta median incomes vary with MMM2. Finally, we find some evidence that individuals' social dominance orientation positively predicts Asians' delta median income, but not Whites' or Blacks'.

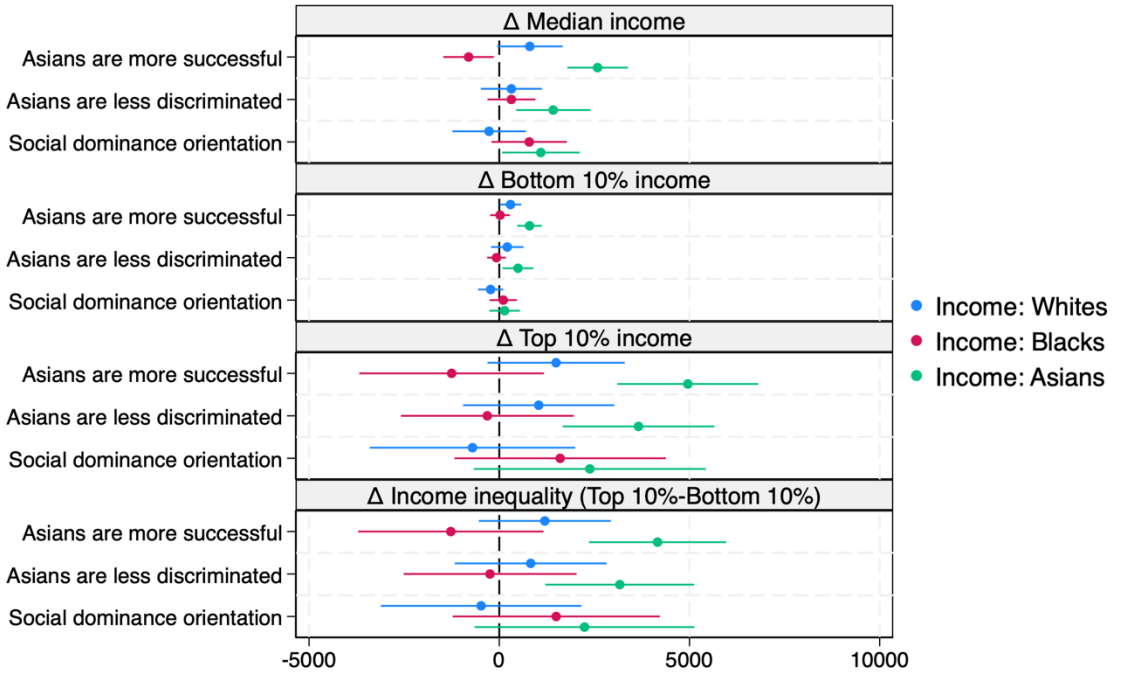


Figure 5: Coefficient plots of model minority beliefs and social dominance orientation on different measures of income. Coefficient plots with 95% confidence intervals. Estimates are obtained by regressing the two principal factors of model minority beliefs, one principal factor of social dominance orientation, and Table 2's control variables on each dependent variable. All principal factors are standardized to have a mean of 0 and a standard deviation of 1. Regression estimates are reported in Tables 4A-6A in the Online Appendix.

MMM1 is also a significant predictor of both delta bottom and delta top 10% income measures. A one standard deviation increase in MMM1 is associated with an increase of $795.6 (*S.E.*=$161.3; $p < .000$) and $4,955.9 (*S.E.*=$920.2; $p < .000$) for Asians' delta bottom 10% income and delta top 10% income, respectively. The counterpart coefficients of MMM2 in the Asians' delta bottom 10% and delta top 10% income equations are slightly smaller at $493.2 (*S.E.*=$201.9; $p = .019$) and $3,660 (*S.E.*=$989.3; $p = .001$). Again, there is little evidence that MMM1, MMM2, and SDO strongly predict delta bottom and delta top 10% income for Whites or Blacks; see Table 5A in the Appendix for the regression estimates.

In consistent with our pre-registered hypothesis, the last panel of Figure 5 shows that people who strongly believe in the model minority stereotype are more likely to overestimate (rather than underestimate) the income gap within the Asian American community.[12] However, given that the marginal effects of both MMM1 and MMM2 are substantially larger on delta top 10% income than delta bottom 10% income, it is also possible that the results only reflect the fact

[12] See Table 6A for the regression estimates.

that people with strong model minority beliefs are significantly more likely to overestimate how affluent Asians are, rather than being more aware of how wide the income gap is between rich and poor Asians.

As an exploratory analysis, Figure 6 reports the coefficient plots obtained from OLS regressions in which the dependent variables are the within-person differences between i) the estimated Asian's income and the estimated Black's income and ii) the estimated Asian's income and the estimated White's income. Here, we find that an increase in either MMM1 or MMM2 strongly predicts a widening of the estimated racial income gaps between Asians and Blacks and Asians and Whites. In other words, model minority beliefs predict not only the gap between estimated and actual incomes for each race but also the within-person estimates of the racial income gaps between Asians and people of other races.

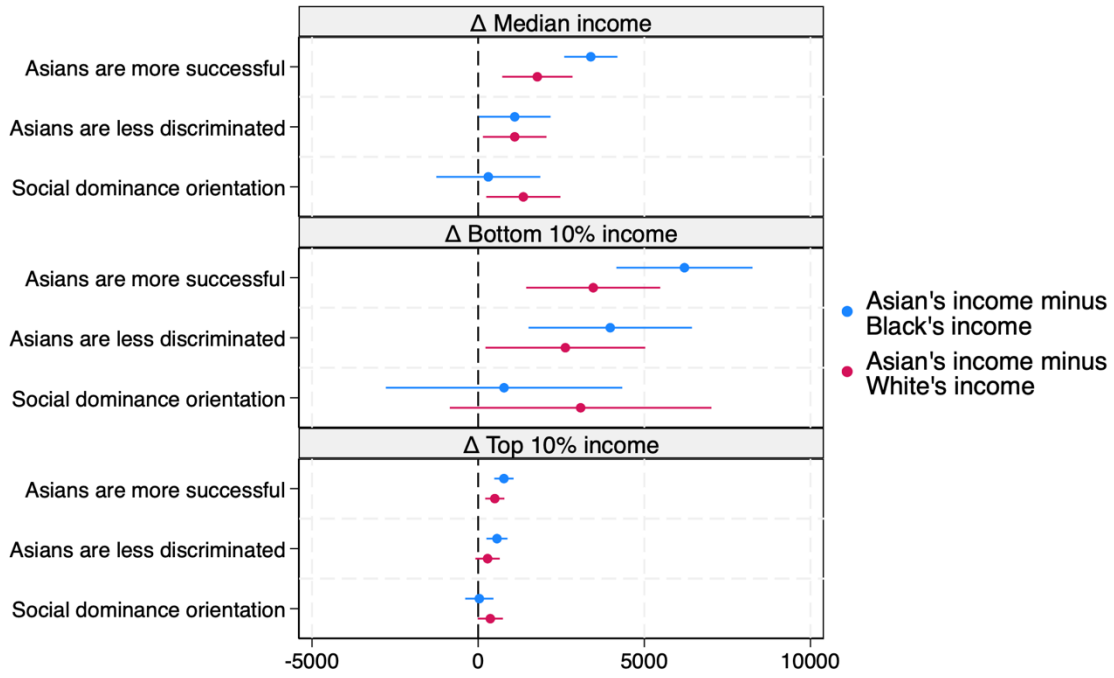


Figure 6: Coefficient plots of model minority beliefs and social dominance orientation on different estimates of racial income gap. Coefficient plots with 95% confidence intervals. Estimates are obtained by regressing the two principal factors of model minority beliefs, one principal factor of social dominance orientation, and Table 2's control variables on estimated Asian's income minus Black's income, and Asian's income minus White's income. All principal factors are standardized to have a mean of 0 and a standard deviation of 1.

We also carry out several heterogeneity analyses and report the results in Figures 2A-2C and Tables 7A-9A in the Appendix. We demonstrate that the positive relationship between model minority beliefs and Asians' income measures reported in Figure 5 is driven primarily by the White

participants, who represent the reference group in the fully interacted model. This provides suggestive evidence that model minority beliefs may affect Whites' views about Asian's economic successes more than they affect Blacks' and Asians'.

5. Model minority stereotypes and a rapid-response cognitive task (Study 4)

The findings of Study 3 suggest that individuals who strongly believe in the model minority stereotype are more likely to overestimate Asians' but not Whites' or Blacks' economic success. However, it does not necessarily imply that they are less cognitively attuned to the inequality that adversely affects Asians compared to those that adversely affect other races. Study 4 uses a similar go/no go experimental set-up to Waldfogel et al. (2021) to investigate whether model minority stereotypes influence the extent to which one accurately notices inequality-related stimuli. We incentivized participants to judge, across 270 trials, whether two sets of money bags, each associated with an AI-generated photo of a person representing a different race and gender, were equal or unequal to one another; see Figure 7 for the sample stimuli used in the experiment. We paid participants US$3 for participating and $US0.01 for each accurately identified pair of money bags in the go/no go task.

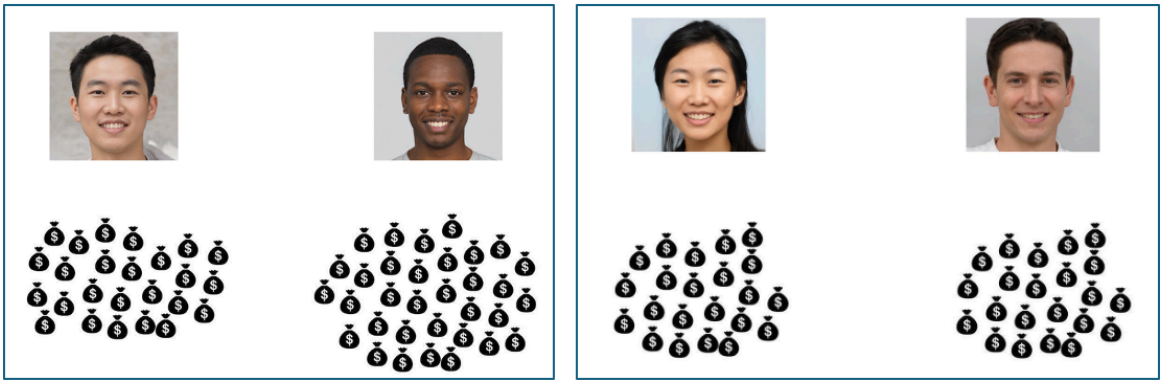
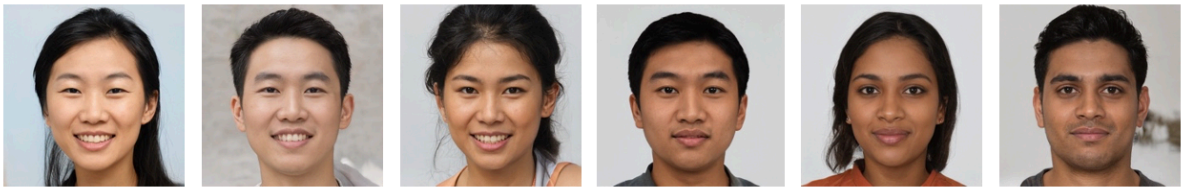


Figure 7: Sample stimuli from Study 4. (*Left*) A sample image of an "unequal" trial. (*Right*) A sample image of an "equal" trial.

There were 15 possible combinations of paired photos that varied in terms of race and gender[13]. On "equal" trials, the relevant signal was for the two sets of money bags associated with each ethnicity/gender to be equal. On "unequal" trials, the relevant signal was for the two sets of money bags associated with each photo to be skewed towards one race/gender. On "go" trials, participants had to hit the space bar when confronted with the relevant signal (i.e., equal or unequal). On "no go" trials, participants were asked to refrain from hitting the space bar when confronted with the relevant signal. Trials then advanced after 6 seconds or sooner when participants hit the space bar. Each participant saw 6 randomly selected image pairs of people with different races and genders (out of the possible 15) without replacement and in random order throughout the entire experiment. Each pair showed 45 different combinations of money bags: 30 of these were "equal", and 15 of these were "unequal."[14] We randomized the order of the six image pairs. Within each of the image pairs shown, we also randomized the order of the 45 flashes of the money bags. For example, if the "Female Asian vs. Male White" photos were shown first, we would vary the distribution of the money bags 45 times in a randomized order before changing to the next pair of images. The entire experiment took 31 minutes or less, depending on the speed of participants hitting the space bar in the "go" trials. As in Waldfogel et al. (2021), we also counterbalanced whether participants were instructed to hit the space bar ("go" trials) when the two distributions of money bags were equal or unequal.[15]



[13] The possible combinations are: "1. Female Asian vs. Male White;" "2. Female Asian vs. Female White;" "3. Female Asian vs. Female Black;" "4. Female Asian vs. Male Black;" "5. Female Asian vs. Male Asian;" "6. Male White vs. Female White;" "7. Male White vs. Female Black;" "8. Male White vs. Male Black;" "9. Male White vs. Male Asian;" "10. Female White vs. Female Black;" "11. Female White vs. Male Black;" "12. Female White vs. Male Asian;" "13. Female Black vs. Male Black;" "14. Female Black vs. Male Asian;" "15. Male Black vs. Male Asian."

[14] We deviated from the pre-registration in which we planned to have 60 combinations of money bag per each image pair, with 45 of these were "equal" and 15 of these were "unequal." This was to reduce the possibility of participants dropping out mid-way while completing the task. We found the 2:1 ratio to work just as well as the planned 3:1 ratio.

[15] In one version of the task, we asked participants to hit the spacebar when the two distributions of money bags were equal ("go" trials) and to refrain from hitting the spacebar when the two money bags are unequal ("no go" trials). In the other version, the instructions were reversed.

Figure 8: Sample of different Asian-related stimuli. From left to right, we have AI-generated photos of East Asian female, East Asian male, Southeast Asian female, Southeast Asian male, South Asian female, and South Asian male.

We also varied between participants the Asian photos by sub-regions (East Asians, Southeast Asians, and South Asians). This process enabled us to test whether participants would react differently across photos of Asian sub-ethnicities; see Figure 8 for a sample of different photos of Asian males and females.

Across inter-racial image pairings, White photos – both male and female – always had more money bags than Asian or Black photos in unequal trials. When matched between Black and Asian photos, Black photos had more money bags than Asians in unequal trials. If the two matched images were people of the same race, they were of different genders. In these scenarios, the male photo had more money bags than the female photo in unequal trials. In short, the number of money bags is subject to $M^{White} > M^{Black} > M^{Asian}$ when the matched images are across races, and $M^{Male} > M^{Female}$ when the matched images are people of the same race in unequal trials. Note that we intentionally set M^{Asian} to be lower than both M^{Black} and M^{White} in unequal trials, which would allow us to test people's naturalistic ability to notice inequality that disadvantaged Asians even if such inequality may not always be representative for people to readily see in the real world.

We use the signal detection framework (Stanislaw & Todorov, 1999) to calculate the outcome variables in Study 4. These are sensitivity (*d'*), which measures the ability to differentiate between equal and unequal scenarios accurately, and response bias (*c*), which measures participants' tendency to perceive scenarios as either equal or unequal, regardless of their actual status. To obtain *d'* for the sets of paired photos shown to each participant, we calculate the difference between the *z*-score of the hit rate for inequality detection, which is the number of correct hits divided by the total number of signal trials, and the *z*-score of the false alarm rate for inequality detection, which is the total number of false alarms (i.e., mistakenly seeing inequality when it is equal) divided by the total number of noise trials.[16] We coded *d'* so that the higher the value, the better is the participant at detecting inequality when it is present and the absence of inequality when it is not present. To obtain *c*, we use the following formula: (z-score of the hit rate + z-score of the false alarm rate)/2. We coded *c* so that a zero value of *c* indicates that is was no

[16] To calculate a z-score, we simply subtract the observed value, x, by the sample mean, $\bar{x}$,before dividing it with the standard deviation of the sample, σ. Note that all z-scores are calculated at the image pair and individual level. This is to allow between image pair and between person comparisons.

response bias. A positive *c* value indicates an individual's tendency to see equality even in its absence. In contrast, a negative *c* value indicates an individual's tendency to see inequality even in its absence. Given that each participant saw six randomly selected pairs of photos, we have a panel-like dataset with the total number of observations (*n*) equal to 3,606 (= 601 unique individuals × 6).

We then estimate the following regression using an individual fixed effects estimator[17]:

$$D'_{ij} = \alpha + R'_{ij}\beta + \gamma_1 MMM1_i + \gamma_2 MMM2_i + \gamma_3 SDO_i + G'_{ij}\delta + u_j + \varepsilon_{ij}, \qquad (3)$$

where $i = 1, \ldots, N$; $j = 1, \ldots, 6$; D'_{ij} is either the sensitivity index (*d'*) for individual *i* in image pair *j* or the corresponding response bias (*c*); R'_{ij} is a vector of dummy variables representing the races of the people in each pair of photos being randomly shown to the participant (*Left photo vs. Right photo*: AA = Asian vs. Asian; AB = Asian vs. Black; AW = Asian vs. White; BB = Black vs. Black; BW = Black vs. White; WW = White vs. White) with BW as the reference pair of photos; G'_{ij} is a vector of dummy variables for the genders of the people in each pair of photos (*Left photo vs. Right photo*: FF = Female vs. Female; FM = Female vs. Male; MF = Male vs. Female; MM = Male vs. Male) with FF as the reference pair of photos; and u_j denotes the random effects. Given that other explanatory variables in Eq.(2) do not have within-person variation, they are automatically dropped from the fixed effects estimation. As in Eq.(2), we use inverse probability weighting obtained from the attrition regression (Table 18A in the Appendix) as the probability weight to correct for the missing data in the analysis. We cluster the standard errors at the individual level. In the full specification, we also include an interaction term of model minority stereotypes and the photo conditions. As a start, we pool all sub-regional Asian photos together in this regression for simplicity and include Asian sub-regional dummy variables as controls.[18]

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[17] The individual fixed effects regression is a deviation from the pre-registered document. In the pre-registered document, we planned to use random effects estimator to estimate the equation. However, we later realized that individual fixed effects estimator is a much stronger test of our hypothesis.

[18] We hypothesized in the pre-registration that participants will be more accurate at detecting inequality experienced by Blacks compared to that experienced by Asians and Whites, and that participants with higher levels of model minority beliefs will be relatively worse at detecting inequality experienced by Asians compared to those with lower levels of model minority beliefs. We also predicted in the pre-registration that "assuming that gender inequality is more salient than inequality experienced by Asians, participants will be more accurate at detecting gender inequality than they will be at detecting inequality experienced by Asians." However, we realized afterwards that it would be difficult to make a direct comparison between race and gender in our current set-up. For example, despite finding

Table 3: Estimates for sensitivity and response bias in the Go/No Go game – Individual fixed effects regressions

	Sensitivity (d') (1)	Sensitivity (d') (2)	Response bias (c) (3)	Response bias (c) (4)
AA	0.122**	0.122**	0.0926**	0.0922**
	(0.0397)	(0.0393)	(0.0289)	(0.0287)
AB	0.0276	0.0291	0.0902***	0.0900***
	(0.0253)	(0.0255)	(0.0193)	(0.0195)
AW	0.0327	0.0305	0.0651***	0.0635***
	(0.0229)	(0.0231)	(0.0165)	(0.0167)
BB	0.00651	0.00364	0.0173	0.0173
	(0.0368)	(0.0371)	(0.0218)	(0.0219)
WW	0.0938*	0.0911*	0.0385	0.0389
	(0.0398)	(0.0401)	(0.0262)	(0.0266)
AA # Asians are more successful		-0.0552	-0.00366	-0.00270
		(0.0400)	(0.0180)	(0.0181)
AB # Asians are more successful		-0.0183	0.0231	0.0230
		(0.0299)	(0.0184)	(0.0183)
AW # Asians are more successful		0.0221	-0.0125	-0.0126
		(0.0266)	(0.0175)	(0.0175)
BB # Asians are more successful		-0.0249		-0.0289
		(0.0329)		(0.0313)
WW # Asians are more successful		0.00970		0.0120
		(0.0391)		(0.0214)
AA # Asians are less discriminated		-0.0326		0.0205
		(0.0383)		(0.0181)
AB # Asians are less discriminated		0.00647		-0.0379
		(0.0266)		(0.0197)
AW # Asians are less discriminated		0.0195		0.0212
		(0.0228)		(0.0249)
BB # Asians are less discriminated		-0.0105		-0.0265
		(0.0373)		(0.0297)
WW # Asians are less discriminated		0.00432		0.00633
		(0.0372)		(0.0210)
AA # Social dominance orientation		0.000489		0.00859
		(0.0345)		(0.0168)
AB # Social dominance orientation		0.0494		0.00399
		(0.0274)		(0.0213)
AW # Social dominance orientation		-0.0116		0.0339
		(0.0243)		(0.0235)
BB # Social dominance orientation		-0.00982		0.00357
		(0.0341)		(0.0264)
WW # Social dominance orientation		0.00128		0.0159
		(0.0355)		(0.0222)
Female right image vs. Male left image	-0.00439	-0.00385		-0.00298
	(0.0267)	(0.0267)		(0.0171)
Male right image vs. Female left image	0.0104	0.00877		0.00428

evidence that participants were significantly more accurate at detecting inequality in the AA condition compared to the AW condition, we felt that we could not conclude that participants were more sensitive at detecting gender inequality than inequality faced by Asians.

	(0.0284)	(0.0282)		(0.0205)
Male right image vs. Male left image	-0.00608	-0.00640		-0.0280
	(0.0270)	(0.0269)		(0.0235)
Observations	3606	3606	3606	3606
Individuals	601	601	601	601
Log-likelihood	-1782.3	-1771.0	-411.3	-400.5

Note: ** $p < 0.01$, *** $p < 0.001$. Conditions: AA = Asian vs. Asian photos; AB = Asian vs. Black photos; AW = Asian vs. White photos; BB = Black vs. Black photo; BW = Black vs. White photo (reference group); and WW = White vs. White photos. When two photos are people of the same race, they will be of the opposite gender. For each pair, the person in the left photo, e.g., A in the AB pair, always had fewer money bags in the "unequal" trials. For the same ethnicity pair, e.g., AA, the left photo is a woman, and the right photo is a man. For the gender pairing, female vs. female is the reference group. Dependent variables are sensitivity (*d'*), which indexes the ability to accurately differentiate between equal and unequal scenarios, and response bias (*c*), which measures participants' bias towards responding to a particular direction, i.e., equal versus unequal. Controls are the same as in Table 2. We also included dummies representing gender of the person in the photo, i.e., Female vs. Female (reference group), Female vs. Male, Male vs. Female, Male vs. Male, and Asian conditions, i.e., East Asian photos (reference group), South Asian photos, and Southeast Asian photos, as additional control variables. The reference group here is BW (Black vs. White) photos. Clustered standard errors at the individual level are in parentheses.

Table 3 reports the regression results. Compared to the BW condition, we can see from column (1) that participants were significantly more accurate at detecting inequality in the AA and WW conditions, which were both Female vs. Male conditions by design. However, there is little evidence that participants were less accurate at detecting inequality in the AB and AW conditions compared to the BW condition.

Looking at column (2) of Table 3, we can see that, although the interaction coefficients between MMM1 and two of the Asian image pairs (AA and AB) are negative, they are not statistically significantly different from zero. In addition, none of the interaction terms of MMM1 and all other image conditions show any significant difference from the reference group (BW). We cannot reject the null hypothesis that the interaction coefficients are equal.[19] These findings indicate that individuals who believe that Asians work harder and are more successful are no more accurate at detecting inequality across all racial disparity conditions, on average. The same conclusion applies to both MMM2 and SDO.

Next, we turn our attention to the last two columns of Table 3, which examine the response bias, c, as the dependent variable. The coefficients of AA, AB, and AW are positive and statistically significantly different from the reference group, i.e., BW (Blacks *versus* Whites). We also reject the null that they are equal to the coefficient of AW. This finding implies that participants are significantly more likely to see equality even in its absence when Asians appeared next to those of other races. In other words, there is a bias toward stating that the distributions of resources between

[19] See the margin plots of Table 3's estimates in Figures 2A-2C in the Appendix.

Asians and people of other races are equal even when, by design, Asians always have fewer money bags than others in unequal trials. However, this response bias does not seem to vary significantly with model minority stereotypes or social dominance orientation. We also carry out a battery of heterogeneity analyses and report the results in Tables 10A-12A in the Appendix, with Table 3's central finding, i.e., people's tendency to see equality between Asians and other races even when Asians have less, continues to be statistically robust among Whites, Blacks, and across different types of Asian photos (East/Southeast/South Asians).

Finally, since White photos always had more money bags than Black and Asian images in Study 4, we could not test whether participants with a strong model minority belief are more likely to notice inequality against Whites. Similarly, since Black photos always had more money bags than Asians, we also could not test whether participants with a strong model minority belief are more likely to notice scenarios where Asians have more resources than Blacks. Hence, Study 4 does not enable us to examine whether people who hold a strong model minority belief are more attuned to all types of inequality or are more attuned to some inequalities than others. We explore this issue further in Study 5.

6. Model minority stereotypes and attention to unequal treatment (Study 5)

In Study 5, we investigate whether model minority stereotypes selectively attune participants' attention towards discrimination against people of their own races instead of people of Asian descent. Specifically, we again adopt a method similar to Waldfogel et al. (2021) and examine how model minority stereotypes predict attention to racial bias in hiring across three experimental conditions: 1) a condition in which Asians are discriminated against in hiring, 2) a condition in which Blacks are discriminated against in hiring, and 3) a condition in which Whites are discriminated against in hiring.

In this study, we asked the returned participants (N=751) to read about an organization called IMB Consulting that had just completed its hiring process. The participants were shown 30 AI-generated photos and hypothetical resumes of applicants who varied across four dimensions: race, gender, GPA, and hometown. Participants viewed each candidate's image and resume and were informed whether the candidate was hired or not. Each returned participant was randomly assigned to one of three treatments: 1) discrimination against Blacks, 2) discrimination against

Whites, and 3) discrimination against Asians. In the third treatment, AI-generated photos of East, Southeast, and South Asians were randomized across participants. The treatments differ only in terms of the correlation between race and the likelihood of being hired. In all three treatments, we design the GPA (+.78) and being male (+0.2) to be positively correlated with the likelihood of being hired. In treatment 1, being Black has a negative correlation (-0.2) with the likelihood of being hired; in treatment 2, being White has a negative correlation (-0.2) with the likelihood of being hired, and the same is true for being Asian in treatment 3. Note that the -0.2-correlation coefficient indicates only a subtle discriminatory treatment by the hypothetical firm, which allows us to detect the lower-bound effect of MMM on people's ability to detect bias.[20]

After completing the task, participants were asked to "*please note anything that stood out to [them] about the hiring process.*" The study coded whether participants naturally mentioned any inequality in the hiring process. We account for any potential incorrect mentions by participants of bias against the racial group that was favored in the treatment. Participants could receive a score of -1, 0, or +1. A score of -1 represents an incorrect mention of bias against the racial group that was, in fact, favored in their treatment. A 0 represents the participant not mentioning any bias, and +1 represents a correct mention of the bias against the racial group disfavored in their treatment. This score is named "**relative naturalistic notice bias.**"[21] The mean value for this variable of score is 0.068, with a standard deviation of 0.352.

As in Waldfogel et al. (2021), we also elicited participants' attention to inequality by directly asking participants to rate the level of racial and gender discrimination in the IMB Consulting's hiring procedure, which we called "**absolute bias judgment.**" We further asked them five questions about their willingness to invite a third-party agency to investigate the company's hiring process. We named these variables "**the desire to investigate**" (DTI); the Cronbach's alpha for DTI is 0.95, suggesting good reliability among the composite scores. We then conducted a

[20] See Figure 3A for the photos used in Study 5.

[21] To give a few examples of comments that we coded as 1 in the treatment of "Discrimination against Whites," one participant typed "Anyone with 3.8-4 GPA was hired. I believe anyone who was hired with a 3.7 GPA was a race other than white (not positive)." Another participant typed "Everyone that had a GPA of 4 was hired; more men than women were hired; mostly minorities were hired." We were relatively more flexible in our coding in the case of discrimination against Blacks and Asians, as sometimes people referred to either of them as "racial minority" candidates. For instance, we coded the following statement of a participant as 1 in the "Discrimination against Asian" treatment: "It seemed mostly regular. There were a couple of times when a 3.8+ person of color didn't get hired, and I thought those times were weird, but it mostly seemed fair to me."

factor principal analysis on the five DTI variables to produce one DTI component, which we use in the analysis. Participants were paid US$2 for participating.[22]

Figure 8 presents the raw data relationship between MMM1 quartiles and relative naturalistic notice bias by treatment. While there does not seem to be a clear relationship between MMM1 and relative naturalistic notice bias in the discrimination against Asians treatment, there is some suggestive evidence that participants who recorded relatively low MMM1 are more likely to naturalistically notice unfair treatment against Black candidates in the discrimination against Blacks treatment. By contrast, participants who recorded relatively high MMM1 are noticeably more likely to naturally notice unfair treatment against White candidates in the discrimination against Whites treatment.

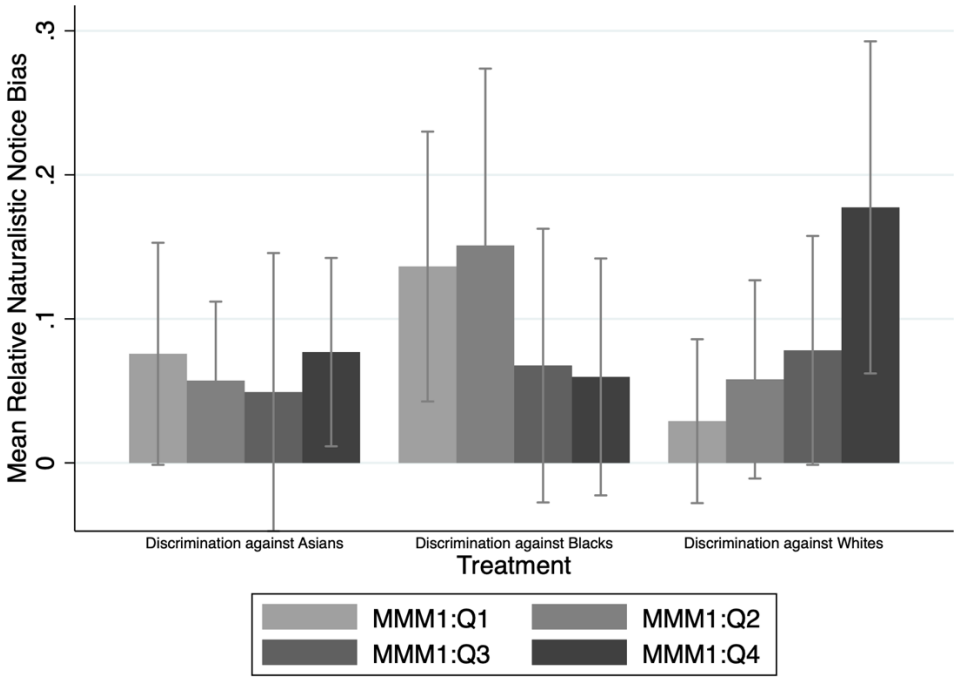

Figure 9: Mean relative naturalistic notice bias by treatments and MMM1 quartiles. The standard errors represent 95% confidence intervals.

[22] Compared to Studies 3 and 4, the number of observations varies among 640, 751, and 911, depending on the outcome variable. This is because there was originally a technical issue that prevented participants from responding to the relative naturalistic notice bias and the desire to investigate questionnaire, although it was still possible to collect the data on absolute bias judgment. As a result, there are missing data at random for the relative naturalistic notice bias and the desire to investigate variables.

To formally explore whether model minority beliefs predict the relative naturalistic notice bias (RNNB), we estimate the following regression:

$$RNNB_i = \alpha + \beta_1 MMM1_i + \beta_2 MMM2_i + \beta_3 SDO_i + T_i'\delta + \theta_1(MMM1_i \times T_i') + \theta_2(MMM2_i \times T_i') + \theta_3(SDO_i \times T_i') + X_i'\gamma + \varepsilon_i, \quad (4)$$

where $RNNB_i$ is individual i's relative naturalistic notice bias that ranges from -1 to 1; and T_i' is a set of treatment dummy variables (discrimination against Asians, discrimination against Blacks, and discrimination against Whites) with the treatment of bias against Asians as the reference. We also interact these treatment dummy variables with MMM1, MMM2, and SDO. As in Eq.(2), we use inverse probability weighting obtained from the attrition regression (Table 18A in the Appendix) as the probability weight to correct for the missing data in the analysis. We cluster the standard errors at the state level.[23]

We report Eq. 4's estimates in Table 4 and illustrate the marginal effects of MMM and SDO on relative naturalistic notice bias by treatments in Figures 4A-4C in the Appendix. Compared to the "Discrimination against Asians" treatment, participants in the "Discrimination against Blacks" and "Discrimination against Whites" treatments were not significantly more aware of racial discrimination taking place in the hiring process, on average. However, the interaction term between MMM1 and "Discrimination against Whites" is positive and statistically significant at the 5% level; the estimated coefficient is 0.059 (*S.E.* = 0.024; *p*-value = 0.016). This estimate suggests that participants who strongly believe that Asians work harder and are more successful are significantly more likely to notice that White candidates were discriminated against in the "Discrimination against Whites" treatment. Moreover, the coefficient on the interaction term between SDO and "Discrimination against Blacks" treatment is negative and statistically significant at the 1% level; the estimated coefficient is -0.059 (*S.E.* = 0.022; *p*-value = 0.009). This finding implies that participants who scored high on the SDO scale are significantly less likely to notice that Black candidates were discriminated against in the "Discrimination against Blacks"

[23] We hypothesized in the pre-registration that participants with strong model minority beliefs will be relatively worse at noticing racial bias against Asians, on average. We also predicted that "participants will be better at noticing gender bias against females and racial bias against Black candidates than they are at noticing racial bias against Whites and Asians." However, we later realized that our experimental set-up did not allow us to directly test this hypothesis.

treatment. On the other hand, the main effects of both MMM1 and MMM2 are negative, though not statistically significantly different from zero, which is inconsistent with H3a. Nevertheless, we present evidence that while people with strong model minority stereotypes are not worse at noticing racial bias against Asians, they are significantly more attuned to noticing racial bias against Whites. As for racial discrimination against Blacks, we find SDO to be a strong driver in this behavior.

Table 4: Relative naturalistic notice bias by discrimination treatment – OLS regressions

Relative naturalistic notice bias	(1) All	(2) Discrimination against Asians treatment only	(3) Discrimination against Blacks treatment only	(4) Discrimination against Whites treatment only
Discrimination against Blacks treatment	0.0594 (0.0351)			
Discrimination against Whites treatment	0.0560 (0.0343)			
Asians are more successful (MMM1)	-0.00487 (0.0142)	-0.0154 (0.0200)	-0.0143 (0.0292)	0.0627* (0.0250)
Discrimination against Blacks # Asians are more successful	-0.00714 (0.0287)			
Discrimination against Whites # Asians are more successful	0.0536* (0.0235)			
Asians are less discriminated (MMM2)	-0.00472 (0.0196)	-0.0265 (0.0245)	0.0205 (0.0320)	-0.0181 (0.0238)
Discrimination against Blacks # Asians are less discriminated	0.0258 (0.0315)			
Discrimination against Whites # Asians are less discriminated	-0.0265 (0.0302)			
Social dominance orientation (SDO)	-0.00751 (0.0252)	-0.00402 (0.0289)	-0.0157 (0.0487)	-0.0380 (0.0275)
Discrimination against Blacks # Social dominance orientation	-0.0253 (0.0189)			
Discrimination against Whites # Social dominance orientation	0.0112 (0.0412)			
Observations	777	258	257	262
Adjusted R^2	0.044	-0.016	-0.003	0.112

Note: * $p < 0.05$. Relative naturalistic notice bias is coded as 0 if participants did not mention bias against the group that received hiring discrimination. It has a value of +1 if participants correctly mentioned bias against the category disfavored in the experimental condition, and a value of -1 if they incorrectly mentioned bias against the category favored in the experimental condition. The reference group is "Discrimination against Asians treatment". Same control variables are as in Table 3. Clustered standard errors at the state level are in parentheses.

To what extent are these findings moderated by the respondent's race? To test this, we interact MMM and SDO variables with the respondent's race and estimate the corresponding model separately for each racial discrimination treatment. The results are reported in Table 13A in

the Appendix. When comparing White participants to Asian and Black participants, there is no significant difference in their ability to recognize racial discrimination against job candidates of their respective races. In the "Discrimination against Whites" treatment, the main effect of MMM1 is 0.046 though statistically insignificant (*S.E.* = 0.027; *p*-value = 0.101). Interactions of MMM1 and each racial category of participants also produce positive but not statistically significant coefficients.

Table 5 replaces relative naturalistic notice bias with absolute bias judgment and desire to investigate as the dependent variables.

Table 5 : Absolute bias judgment and desire to investigate by discrimination treatment – OLS regressions

	BAA	BAB	BAW	DTI
	(1)	(2)	(3)	(4)
Discrimination against Blacks treatment	-0.244*	0.388***	0.0842	-0.00855
	(0.0918)	(0.0960)	(0.0917)	(0.192)
Discrimination against Whites treatment	-0.339**	-0.123	0.516***	0.0684
	(0.101)	(0.0663)	(0.123)	(0.193)
Asians are more successful (MMM1)	-0.120	-0.146	0.0166	0.0536
	(0.107)	(0.0934)	(0.0634)	(0.104)
Discrimination against Blacks # Asians are more successful	0.113	0.0324	-0.0163	-0.162
	(0.148)	(0.114)	(0.0826)	(0.162)
Discrimination against Whites # Asians are more successful	0.0655	0.136	0.0754	0.120
	(0.133)	(0.115)	(0.118)	(0.159)
Asians are less discriminated (MMM2)	-0.0107	0.0588	0.112	-0.0551
	(0.0840)	(0.0674)	(0.0564)	(0.206)
Discrimination against Blacks # Asians are less discriminated	0.0228	-0.156	-0.0535	-0.0223
	(0.129)	(0.0957)	(0.0939)	(0.276)
Discrimination against Whites # Asians are less discriminated	0.0297	0.0149	-0.0523	0.0979
	(0.109)	(0.111)	(0.0897)	(0.235)
Social dominance orientation (SDO)	0.202	0.0352	0.128	-0.141
	(0.103)	(0.0784)	(0.0735)	(0.142)
Discrimination against Blacks # Social dominance orientation	-0.125	-0.144	-0.0455	0.00674
	(0.137)	(0.109)	(0.0933)	(0.160)
Discrimination against Whites # Social dominance orientation	0.0440	0.130	0.107	0.280
	(0.114)	(0.102)	(0.132)	(0.183)
Observations	911	911	911	640
Adjusted R^2	0.083	0.112	0.077	0.106

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Dependent variables are i) Biased against Asian candidates (BAA) (Column 1); ii) Biased against Black candidates (BAB) (Column 2); iii) Biased against White candidates (BAW) (Column 3); and iv) the principal factor of the Desire to Investigate (DTI) (Column 4). Responses to the BAA, BAB, and BAW questions range from "1.Strongly disagree" to "7.Strongly agree". DTI is standardized to have a mean of 0 and a standard deviation of 1. Same control variables are as in Table 3. The reference group is "Discrimination against Asians treatment". Clustered standard errors at the state level are in parentheses.

We asked participants to directly judge the level of racial bias in the company's hiring process. Column (1) shows that compared to the "Discrimination against Asians" treatment, participants in the "Discrimination against Blacks" and "Discrimination against Whites" treatment reported significantly lower absolute bias judgment against Asians (BAA), on average. Similarly, participants in the "Discrimination against Blacks" treatment report significantly higher absolute bias judgment against Blacks (BAB) compared to those in the "Discrimination against Asians" and "Discrimination against Whites", on average; see Column 2. The same also applies to participants in the "Discrimination against Whites" treatment in Column 3. These results indicate that people are more likely to identify the correct racial bias across different treatments. We can also see in Column 4 that the desire to investigate does not vary significantly across treatments.

However, the coefficients relevant to MMM1, including the interactions, are not statistically significant in any of the columns, which is inconsistent with Table 5's results. In other words, there is little evidence that individuals with strong model minority beliefs rate absolute bias judgment or desire to investigate higher or lower, on average.

We conduct a further test by respondent's race in Table 14A in the Appendix. Looking across columns, we find that Asian participants are significantly more likely than White participants to notice discrimination against Asian candidates in the "Discrimination against Asians" treatment. Both Asian and Black participants also report a stronger desire to investigate than White participants in the "Discrimination against Asians" treatment. Unlike the relative naturalistic notice bias results, we do not find the main effect of MMM1 to be positive and statistically well-determined in the "Discrimination against Whites" treatment. However, there is some evidence that Asians with a strong belief that Asians work harder and are more successful are significantly less likely to notice discrimination against White candidates in the "Discrimination against Whites" treatment. They also have a significantly lower desire to investigate when it comes to discrimination against Whites.

What explains the discrepancy between the relative naturalistic notice bias and absolute bias judgment results? One possible explanation might be the social desirability bias. White participants may not feel comfortable agreeing with the "Biased against Whites" statement even when there was a bias against White candidates for fear of appearing to favor their in-group. However, they may have been more comfortable to point out in an open-ended question that they noticed that not a lot of White candidates were hired (or that most of the hires were people from

minority backgrounds). Another potential explanation might be that when we directly asked participants to judge whether there was any racial bias in the hiring process, they were given a prompt to focus more on a candidate's race. As a result, participants were more likely to correctly recall which candidates of certain races were more discriminated against in the hiring process, irrespective of their model minority beliefs. However, these are merely speculations and should therefore be treated with care.

We also carry out several robustness checks and report the results in Tables 15A-17A in the Appendix, which yield some interesting and unexpected results. For instance, we observe that participants who score high on MMM1 are significantly less likely to detect discrimination against Black candidates in the "Discrimination against Blacks" treatment when the photos of East Asian candidates are used in the experiment. However, most of the estimated coefficients are not statistically significantly different from zero in these robustness checks.

Overall, we do not find evidence that people with a strong belief that Asians work harder and are more successful are significantly less likely to notice discrimination against Asians. However, we find some suggestive evidence that, on average, individuals with a strong belief that Asians work harder and are more successful are significantly more likely to naturalistically point out unfair hiring practices against White candidates.

One objection to our findings is that the *p*-values reported in our studies are subject to multiple comparisons problem (List et al., 2019), which can lead to the discovery of false positives. Given that the main statistically significant explanatory variable across our studies is the belief that Asians work harder and are more successful (MMM1), Tables 19A and 20A performs multiple testing corrections as described in Westfall and Young (1993) and reports the adjusted *p*-values for the estimated coefficients of MMM1 from Studies 3 and 5, and the Go/No Go treatments from Study 4, respectively. Reassuringly, all MMM1 and Go/No Go treatment coefficients that are statistically significant in Studies 3, 4, and 5 continue to be statistically significant at conventional levels following various *p*-value adjustments, which suggests that none of our findings are likely to be false positives.

7. Discussions and conclusion

Despite being one of the fastest-growing and the most economically diverse ethnic groups in the U.S. over the last two decades (Budiman & Ruiz, 2021; Kochhar & Cilluffo, 2018), Asian Americans have received very little research attention within the field of economics. We argue that this lack of interest may, in part, reflect the positive stereotypes that many people have about Asian Americans, i.e., Asians work harder and are more successful compared to other ethnic minorities. We also hypothesize that the pervasiveness of such a positive view may do more harm than good to the livelihood of Asian Americans by preventing people from acknowledging and recognizing Asians' experiences of discrimination and economic hardship and that Asians do not require financial assistance or government handouts of any form.

To advance our understanding of this critical social issue, we empirically and experimentally investigate in this study the extent of such beliefs in modern America and how they may selectively shape people's attention to inequality and discrimination against Asians and people of other races. We open with Google Trends evidence on the relative magnitudes of public interests in different racially motivated violence in the U.S. (Study 1). We show that the intensity of the search for StopAsianHate following a mass shooting of Asian workers in Atlanta is around 27% points lower than the intensity of the search for BlackLivesMatter following the murder of George Floyd. While we are not implying that one tragic event should have received more public interest than the other, we certainly have suggestive evidence that people may generally behave more apathetically towards Asian's adverse experiences in the U.S. This, we also hypothesize, might be due in part to the prevalence of positive stereotypes about Asians in modern America.

Study 2 sheds some light on how prevalent such beliefs about Asians being the model minority are in the U.S. Using a nationally representative sample of Prolific participants in the U.S., we show that around 9 in 10 individuals in our sample hold a moderate to strong belief that Asians work harder and are more successful compared to other ethnic minorities. We then show that the stronger the belief, the more likely the belief holder will overestimate how much an average Asian at different points of the income distribution earns relative to the actual values taken from the Census (Study 3). However, despite Study 3 showing that people with stronger positive stereotypes about Asians are more likely to have an overly positive view about their economic successes, it does not necessarily imply that they will also be naturalistically less aware of inequality and discrimination that adversely affects Asian Americans compared to people of other races.

To investigate this hypothesis more formally, we use a basic speeded cognitive task in Study 4 to test whether people who hold a stronger model minority belief are relatively worse at differentiating distributions of resources that favor people of other races over Asians from equal distributions. While people with a strong model minority belief are not worse at identifying inequality between Asians and other races compared to inequality between Blacks and Whites, they have, irrespective of where they stand on the model minority scale, a general tendency to see equality between Asians and people of other races even when Asians always have less resources in our cognitive task by design. This result indicates that people are much more likely to miss reacting to inequality that adversely affects Asians compared to reacting to inequality that adversely affects Blacks.

Since inequality in Study 4 asymmetrically impacted some racial groups more than others – for example, White images always had more distribution of resources than Black and Asian images, Study 5 introduces a random variation of inequality in the hiring process in which only one of the three racial groups of the candidates (Asian, Black, White) received discriminatory treatment. We find some evidence that people with a strong model minority belief are much more likely to naturally (and correctly) notice discrimination in the hiring process against White candidates than Asian or Black candidates. However, there was little evidence to suggest that the same individuals explicitly judge any racial group to be more discriminated against in the absolute bias judgment or that they have a further desire to investigate the hiring process. Thus, Study 5 provides some evidence to suggest that people who hold a strong model minority belief are relatively more attuned to inequality that adversely affects Whites rather than Asians. Given that people with White supremacy ideology created the model minority stereotypes about Asian Americans as a tool to argue against Black American claims of racial oppression (Wu, 2016), this finding is consistent with the idea that Whites with a strong model minority belief are naturalistically more attuned towards inequality and discrimination against White majority, not the "model" minority themselves for self-interest reasons.

One question of interest is why we did not also find people with strong model minority beliefs to be more apathetic towards Asian discriminatory experiences in Studies 4 and 5. One potential explanation for this is that we have very few people in our sample who did not at least moderately believe that Asians work harder and are more successful compared to other ethnic minorities, i.e., less than 9% scored four or below in the MMM1 variable. As a result, we may not

have enough variation to pick up the effect if people's natural awareness of inequality that adversely impacts Asians only activates among those who do not believe in the model minority stereotype at all. People's attention to inequality and discrimination against Asians may also be more related to the person's race than how much they believe about the stereotypes. For example, despite possessing the highest averaged model minority beliefs among all racial groups, Asians are, understandably, extremely aware of the discriminatory hiring practices against Asians and report the strongest desire to investigate in Study 5 (see Table 14A in the Appendix). Finally, it might be the case that model minority beliefs enter each regression non-linearly instead of linearly. We test the non-linearity assumption by replacing the linear measures of MMM and SDO with dummy variables that represent scores within the top quartile (25%) and report the results in Tables 21A and 22A in the Appendix. We find some evidence of non-linearity in Study 4's results. For example, people who score within the top 25% in the MMM1 variable are significantly less likely to differentiate inequality in resources between Asian and Black images compared to Black and White images (Table 21A). However, we did not find evidence of non-linearity in Study 5's findings (Table 22A). In summary, we do not think that non-linearity is the main reason why there is little evidence of people with strong model minority beliefs reacting more apathetically towards Asian discriminatory experiences in Studies 4 and 5.

Perhaps one surprising finding from Studies 4 and 5 is that people who disagree with the ideology that Asians are less discriminated against (MMM2) are not more attuned to inequality that negatively affects Asians. This raises an important question of whether raising public awareness of racial discrimination against Asians – especially during the COVID-19 pandemic – had any significant impact on people's natural ability to notice inequality against Asians.

Our findings have important policy implications. First, since most people in our nationally representative study either moderately or strongly believe in the model minority stereotype, we can infer that it is socially acceptable for people to hold such a belief. Attempts to reduce the extent of model minority beliefs may thus be difficult and, in many people's eyes, not necessary. One possible solution is for legislators to pass a bill that mandates schools to start incorporating the lived experiences of Asian Americans and Pacific Islanders into their curriculum nationwide.[24] There may also be scope for training policymakers to be more aware of how their positive

[24] At the time of writing, New Jersey, Connecticut, Illinois, and Rhode Island have passed a state law in May 2022 to require that a K-8 AAPI curriculum be taught in public schools by the 2025-26 school year.

stereotypes about Asian Americans, if there are any, can subconsciously influence the way they formulate social redistributive policies that might unintentionally end up disfavoring Asians compared to people of other racial backgrounds. Representation in leadership roles also matters, given that Asian participants are the only group to naturally notice discrimination in the hiring process against Asian candidates in Study 5. Future research should return to investigate whether improving people's understanding of the inequality that adversely affects many Asian Americans can improve their attention to inequality and unfair treatment against Asians in general.

More generally, this study provides the first large-scale evidence of how the model minority stereotype systematically shapes the public's perception and attention to inequality experienced by Asian Americans compared to those of other racial backgrounds. It also provides fertile ground for further research on the implications of being Asian in the United States in economics.

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ONLINE APPENDIX

Appendix A: Questionnaires, Additional Figures and Tables, and Photos for Online Experiments Studies 2 to 5

Model minority myth questionnaire, from Yoo et al. (2010).

In comparison to other racial minorities (e.g., African American, Hispanics, Native Americans).

1. Asian Americans have stronger work ethics
2. Asian Americans are harder workers
3. Despite experiences with racism, Asian Americans are more likely to achieve academic and economic success
4. Asian Americans are more motivated to be successful
5. Asian Americans generally have higher grade point averages in school because academic success is more important
6. Asian Americans get better grades in school because they study harder
7. Asian Americans generally perform better on standardized exams (i.e., SAT) because of their values in academic achievement
8. Asian Americans make more money because they work harder
9. Asian Americans are more likely to be good at math and science
10. Asian Americans are more likely to persist through tough situations
11. Asian Americans are less likely to face barrier at work
12. Asian Americans are less likely to encounter racial prejudice and discrimination
13. Asian Americans are less likely to experience racism in the United States
14. Asian Americans are more likely to be treated as equals to European Americans
15. It is easier for Asian Americans to climb the corporate ladder

Responses: 1 = strongly disagree, …, 7 = strongly agree.

Social dominance orientation questionnaire, from Ho et al. (2015).

Show how much you favor or oppose each idea below by selecting a number from 1 to 7 on the scale below. You can work quickly; your first feeling is generally best.

1. An ideal society requires some groups to be on top and others to be on the bottom.
2. Some groups of people are simply inferior to other groups.
3. No one group should dominate in society.
4. Groups at the bottom are just as deserving as groups at the top.
5. Group equality should not be our primary goal.
6. It is unjust to try to make groups equal.
7. We should do what we can to equalize conditions for different groups.
8. We should work to give all groups an equal chance to succeed.

Responses: 1 = strongly oppose, …, 7 = strongly favor.

Figure 1A: Distribution of responses in the model minority myth questionnaire

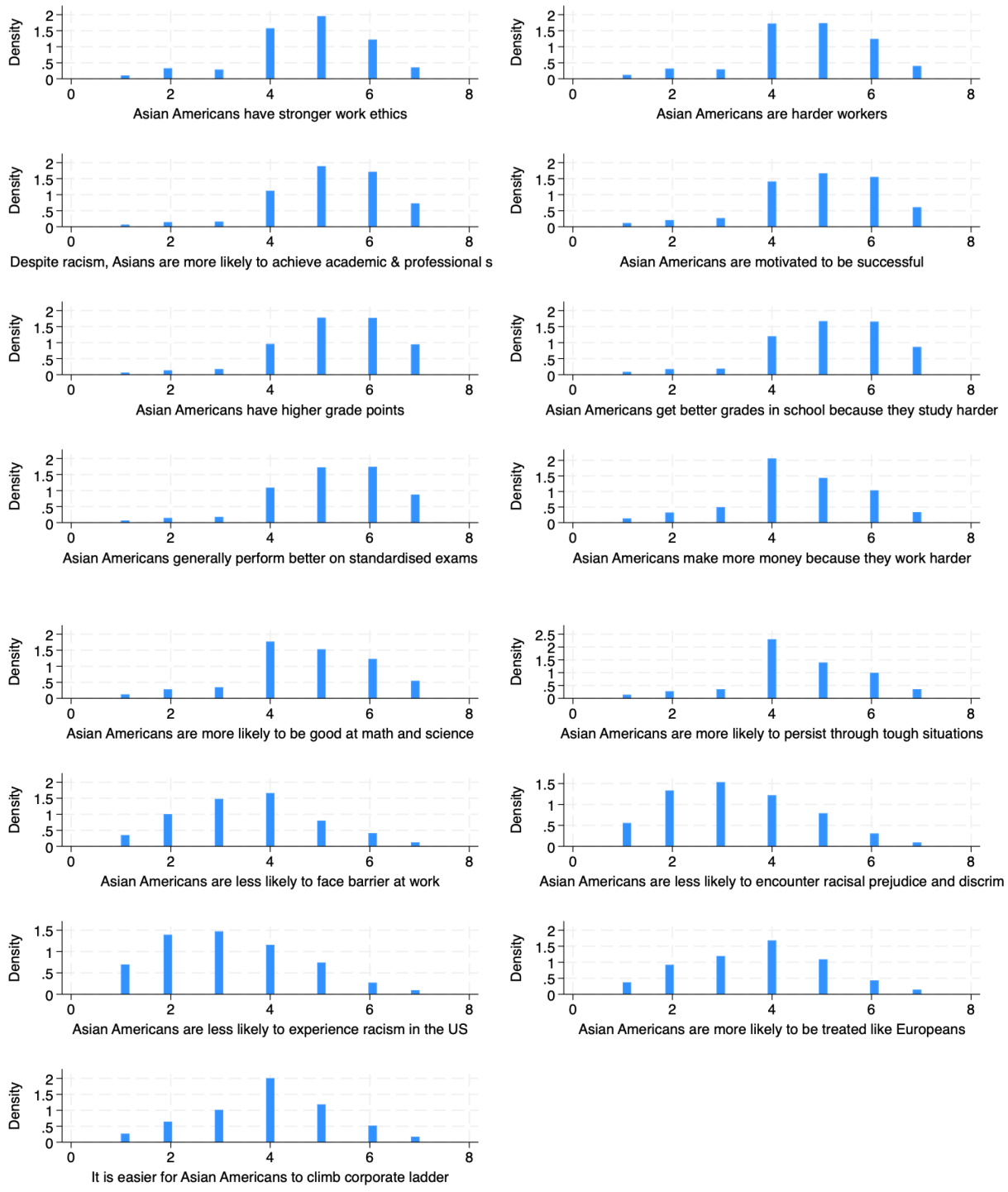


Table 1A: Descriptive statistics

	N	Mean	se(Mean)
F1: "Asians work harder and are more successful"	3291	5.401	.022
F2: "Asians are less discriminated against"	3291	3.381	.023
Social dominance orientation index	3291	-1.189	.027
Female	3291	.508	.009
Non-binary/third gender	3291	.012	.002
Prefer not to say	3291	.003	.001
Other	3291	0	0
Married	3291	.427	.009
Cohabiting	3291	.096	.005
Divorced	3291	.101	.005
Separated	3291	.012	.002
Widowed	3291	.03	.003
Prefer not to say	3291	.003	.001
25-29	3291	.127	.006
30-34	3291	.091	.005
35-39	3291	.099	.005
40-44	3291	.088	.005
45-49	3291	.073	.005
50-54	3291	.091	.005
55-59	3291	.09	.005
60-64	3291	.116	.006
65-70	3291	.079	.005
70 or over	3291	.058	.004
Full-time employment	3291	.419	.009
Part-time employment	3291	.136	.006
Unemployed	3291	.061	.004
Asian	3291	.058	.004
Black	3291	.128	.006
Mixed	3291	.02	.002
Other	3291	.017	.002
$10,000-$19,999	3291	.059	.004
$20,000-$29,999	3291	.075	.005
$30,000-$39,999	3291	.088	.005
$40,000-$49,999	3291	.088	.005
$50,000-$59,999	3291	.094	.005
$60,000-$69,999	3291	.069	.004
$70,000-$79,999	3291	.076	.005
$80,000-$89,999	3291	.057	.004
$90,000-$99,999	3291	.063	.004
$100,000-$149,999	3291	.171	.007
$150,000 or more	3291	.108	.005
Prefer not to say	3291	.019	.002
Some undergraduate	3281	.119	.006
Completed undergraduate	3281	.207	.007
Some graduate	3281	.38	.008
Completed graduate	3281	.072	.005
Other	3281	.21	.007
Some undergraduate	3281	.008	.002
Republican	3285	.208	.007
Independent	3285	.269	.008
Prefer not to say	3285	.01	.002
No political affiliation	3285	.043	.004
Foreign born	3291	.115	.006

Table 2A: Exploratory factor analysis based on polychoric correlation

a) Model minority myths

	Factor1	Factor2	Uniqueness
Asian Americans have stronger work ethics (MMM1)	.8333893	-.1623512	.2791043
Asian Americans are harder workers (MMM2)	.81934	-.1824902	.2953794
Despite racism, Asians are more likely to achieve academic and professional success (MMM3)	.8106377	-.1219545	.3279936
Asian Americans are motivated to be successful (MMM4)	.8641423	-.1724507	.2235189
Asian Americans have higher grade points (MMM5)	.8507767	-.2022822	.2352608
Asian Americans get better grades in school because they study harder (MMM6)	.8445039	-.1821537	.2536332
Asian Americans generally perform better on standardized exams (MMM7)	.8439331	-.1765675	.2566008
Asian Americans make more money because they work harder (MMM8)	.8153192	-.0660405	.3308932
Asian Americans are more likely to be good at math and science (MMM9)	.7803709	-.0249246	.3904
Asian Americans are more likely to persist through tough situations (MMM10)	.7611865	-.1025859	.4100712
Asian Americans are less likely to face barrier at work (MMM11)	.3247222	.7284362	.3639361
Asian Americans are less likely to encounter racial prejudice and discrimination (MMM12)	.2518138	.8666628	.1854853
Asian Americans are less likely to experience racism in the US (MMM13)	.2520818	.8661496	.1862397
Asian Americans are more likely to be treated like Europeans (MMM14)	.3201515	.7239967	.3733319
It is easier for Asian Americans to climb corporate ladder (MMM15)	.395033	.6432859	.4301322

Note: All responses, which range from “1. Strongly disagree” to “7. Strongly agree”, are “compared to other ethnic minorities”.

b) Social dominance orientation

	Factor1	Uniqueness
An ideal society requires some groups to be on top (SDO1)	.839021	.2960437
Some groups of people are simply inferior (SDO2)	.8223175	.323794
No one group should dominate in society (SDO3)	-.7433236	.44747
Groups at the bottom are just as deserving as the top (SDO4)	-.7678396	.4104224
Group equality should not be primary goal (SDO5)	.7847403	.3841826
It is unjust to try to make groups equal (SDO6)	.8694036	.2441374
We should do what we can to equalize conditions for different groups (SDO7)	-.8599156	.2605451
We should work to give all groups an equal chance to succeed (SDO8)	-.8025558	.3559042

Note: All responses range from "1. Strongly oppose" to "7. Strongly favor".

Table 3A: Polychoric correlation matrix

a) Model minority myths

	MMM1	MMM2	MMM3	MMM4	MMM5	MMM6	MMM7	MMM8	MMM9	MMM10	MMM11	MMM12	MMM13	MMM14	MMM15
MMM1	1	.8695127	.7010511	.7573435	.6743833	.6600718	.6429912	.7037563	.6301839	.6583662	.1521084	.0859094	.0772753	.1470797	.1963081
MMM2	.8695127	1	.6616689	.7661061	.6451845	.6459565	.6202515	.7184623	.6088639	.6761475	.1336913	.0615316	.0610206	.1278894	.1704144
MMM3	.7010511	.6616689	1	.7428354	.7549624	.7056493	.7303718	.6179282	.6332534	.5887365	.1815067	.0872976	.0775474	.1779377	.2786818
MMM4	.7573435	.7661061	.7428354	1	.7519831	.7373896	.7283009	.7266344	.6734888	.7125396	.141173	.0683425	.0802204	.1535487	.2233606
MMM5	.6743833	.6451845	.7549624	.7519831	1	.8389944	.8595346	.6446277	.6768961	.5988894	.1219712	.0426441	.0309322	.1317234	.2256171
MMM6	.6600718	.6459565	.7056493	.7373896	.8389944	1	.843099	.7041592	.6478342	.6100218	.1424475	.0427654	.0478357	.1511571	.2360386
MMM7	.6429912	.6202515	.7303718	.7283009	.8595346	.843099	1	.6685579	.6652415	.6098094	.1434176	.0536164	.0526602	.1580792	.2322786
MMM8	.7037563	.7184623	.6179282	.7266344	.6446277	.7041592	.6685579	1	.6554922	.6937118	.2244737	.1566764	.1539622	.2030041	.255665
MMM9	.6301839	.6088639	.6332534	.6734888	.6768961	.6478342	.6652415	.6554922	1	.6602483	.2363565	.1713865	.179569	.2113027	.3054269
MMM10	.6583662	.6761475	.5887365	.7125396	.5988894	.6100218	.6098094	.6937118	.6602483	1	.1814736	.1043618	.1163037	.1411826	.2129629
MMM11	.1521084	.1336913	.1815067	.141173	.1219712	.1424475	.1434176	.2244737	.2363565	.1814736	1	.7509418	.7000548	.5955202	.6211938
MMM12	.0859094	.0615316	.0872976	.0683425	.0426441	.0427654	.0536164	.1566764	.1713865	.1043618	.7509418	1	.8678986	.6741718	.6053524
MMM13	.0772753	.0610206	.0775474	.0802204	.0309322	.0478357	.0526602	.1539622	.179569	.1163037	.7000548	.8678986	1	.7193181	.6150689
MMM14	.1470797	.1278894	.1779377	.1535487	.1317234	.1511571	.1580792	.2030041	.2113027	.1411826	.5955202	.6741718	.7193181	1	.6799724
MMM15	.1963081	.1704144	.2786818	.2233606	.2256171	.2360386	.2322786	.255665	.3054269	.2129629	.6211938	.6053524	.6150689	.6799724	1

Note: We asked our participants to following questions: "In comparison to other racial minorities (e.g., African American, Hispanics, Native Americans)…" MMM1 = "Asian Americans have stronger work ethics"; MMM2 = "Asian Americans are harder workers"; MMM3 = "Despite experiences with racism, Asian Americans are more likely to achieve academic and economic success"; MMM4 = "Asian Americans are more motivated to be successful"; MMM5 = "Asian Americans generally have higher grade point averages in school because academic success is more important"; MMM6 = "Asian Americans get better grades in school because they study harder"; MMM7 = "Asian Americans generally perform better on standardized exams (i.e., SAT) because of their values in academic achievement"; MMM8 = "Asian Americans make more money because they work harder"; MMM9 = Asian Americans are more likely to be good at math and science"; MMM10 = "Asian Americans are more likely to persist through tough situations"; MMM11 = "Asian Americans are less likely to face barrier at work"; MMM12 = "Asian Americans are less likely to encounter racial prejudice and discrimination"; MMM13 = "Asian Americans are less likely to face racism in the United States"; MMM14 = "Asian Americans are more likely to be treated as equals to European Americans"; MMM15 = "It is easier for Asian Americans to climb the corporate ladder".

b) Social dominance orientation

	SDO1	SDO2	SDO3	SDO4	SDO5	SDO6	SDO7	SDO8
SDO1	1	.8564881	-.6454447	-.615402	.622148	.6872059	-.6345459	-.6141223
SDO2	.8564881	1	-.621163	-.6384222	.5847404	.663717	-.6043391	-.6090582
SDO3	-.6454447	-.621163	1	.6174082	-.5422567	-.6110449	.6263682	.6240812
SDO4	-.615402	-.6384222	.6174082	1	-.560964	-.6387922	.6794194	.6587096
SDO5	.622148	.5847404	-.5422567	-.560964	1	.8086741	-.7021984	-.5884037
SDO6	.6872059	.663717	-.6110449	-.6387922	.8086741	1	-.7900821	-.6654556
SDO7	-.6345459	-.6043391	.6263682	.6794194	-.7021984	-.7900821	1	.7848487
SDO8	-.6141223	-.6090582	.6240812	.6587096	-.5884037	-.6654556	.7848487	1

Note: We ask respondents to “Show how much you favor or oppose each idea…” SDO1 = “An ideal society requires some groups to be on top”; SDO2 = “Some groups of people are simply inferior”; SDO3 = “No one group should dominate in society”; SDO4 = “Groups at the bottom are just as deserving as the top”; SDO5 = “Group equality should not be primary goal”; SDO6 = “It is unjust to try to make groups equal”; SDO7 = “We should do what we can to equalize conditions for different groups”; SDO8 = “We should work to give all groups an equal chance to succeed”.

Table 4A: Delta median income estimates – OLS regressions

	Delta (Δ) median income: Whites	Delta (Δ) median income: Blacks	Delta (Δ) median income: Asians
Asians are more successful	803.4	-805.9*	2584.5***
	(426.9)	(329.4)	(394.9)
Asians are less discriminated	318.8	318.6	1418.6**
	(398.7)	(312.7)	(484.0)
Social dominance orientation	-267.0	788.2	1093.2*
	(480.0)	(491.5)	(506.5)
Observations	803	803	803
Adjusted R^2	0.077	0.030	0.123

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Dependent variables are the individual's estimated median income *minus* the actual median income reported in the 2021 American Community Survey (ACS) for each race. All regressions include the same control variables as in Table 2. Clustered standard errors at the State level are in parentheses. Because of attrition, we use inverse probability weighting obtained from the attrition regression as weight in all regressions.

Table 5A: Delta bottom and top 10% income estimates – OLS regressions

	Delta (Δ) bottom 10%: Whites	Delta (Δ) bottom 10%: Blacks	Delta (Δ) bottom 10%: Asians	Delta (Δ) top 10%: Whites	Delta (Δ) top 10%: Blacks	Delta (Δ) top 10%: Asians
Asians are more successful	295.3*	20.86	795.6***	1492.5	-1252.4	4955.9***
	(140.5)	(128.8)	(161.3)	(895.4)	(1204.2)	(920.2)
Asians are less discriminated	210.2	-72.52	493.2*	1036.1	-315.1	3660.0***
	(211.3)	(121.9)	(201.9)	(987.4)	(1126.1)	(989.3)
Social dominance orientation	-226.3	104.8	139.8	-703.0	1601.6	2380.4
	(164.6)	(178.8)	(199.0)	(1339.2)	(1377.8)	(1513.0)
Observations	803	803	803	803	803	803
Adjusted R^2	0.059	0.055	0.076	0.029	0.013	0.062

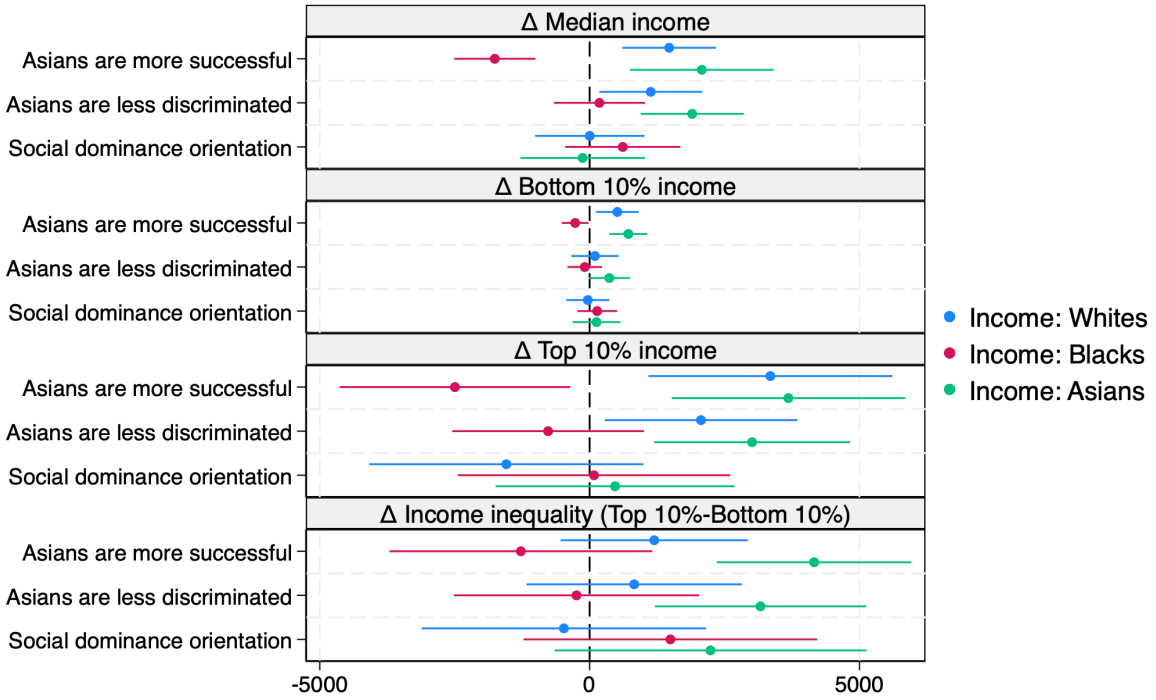
Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Dependent variables are the individual's estimated bottom (top) 10% income *minus* the actual bottom (top) 10% income reported in the 2021 American Community Survey (ACS) for each race. All regressions include the same control variables as in Table 2. Clustered standard errors at the State level are in parentheses. Because of attrition, we use inverse probability weighting obtained from the attrition regression as weight in all regressions.

Table 6A: Delta income inequality estimates – OLS regressions

	Delta (Δ) income inequality: Whites	Delta (Δ) income inequality: Blacks	Delta (Δ) income inequality: Asians
Asians are more successful	1197.2	-1273.2	4160.3***
	(861.0)	(1208.5)	(895.1)
Asians are less discriminated	825.9	-242.5	3166.8**
	(989.7)	(1127.7)	(970.8)
Social dominance orientation	-476.8	1496.8	2240.6
	(1307.9)	(1350.0)	(1433.6)
Observations	803	803	803
Adjusted R^2	0.025	0.013	0.051

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Dependent variables are the individual's estimated income inequality (top 10%-bottom 10%) *minus* the actual income inequality (top 10%-bottom 10%) reported in the 2021 American Community Survey (ACS) for each race. All regressions include the same control variables as in Table 2. Clustered standard errors at the State level are in parentheses. Because of attrition, we use inverse probability weighting obtained from the attrition regression as weight in all regressions.

Figure 1A: Coefficient plots of model minority beliefs and social dominance orientation on different measures of income respondents estimated the average American would say



Note: The dependent variables are derived from questions that asked respondents to state what they think the average American would think about the median income/bottom 10% income/top 10% income for people of different races. Coefficient plots with 95% confidence intervals. Estimates are obtained by regressing the two principal factors of model minority beliefs, one principal factor of social dominance orientation, and Table 2's control variables on each dependent variable. All principal factors are standardized to have a mean of 0 and a standard deviation of 1.

Figures 2A-2C: Coefficient plots of model minority beliefs and social dominance orientation on different measures of income by respondent's race

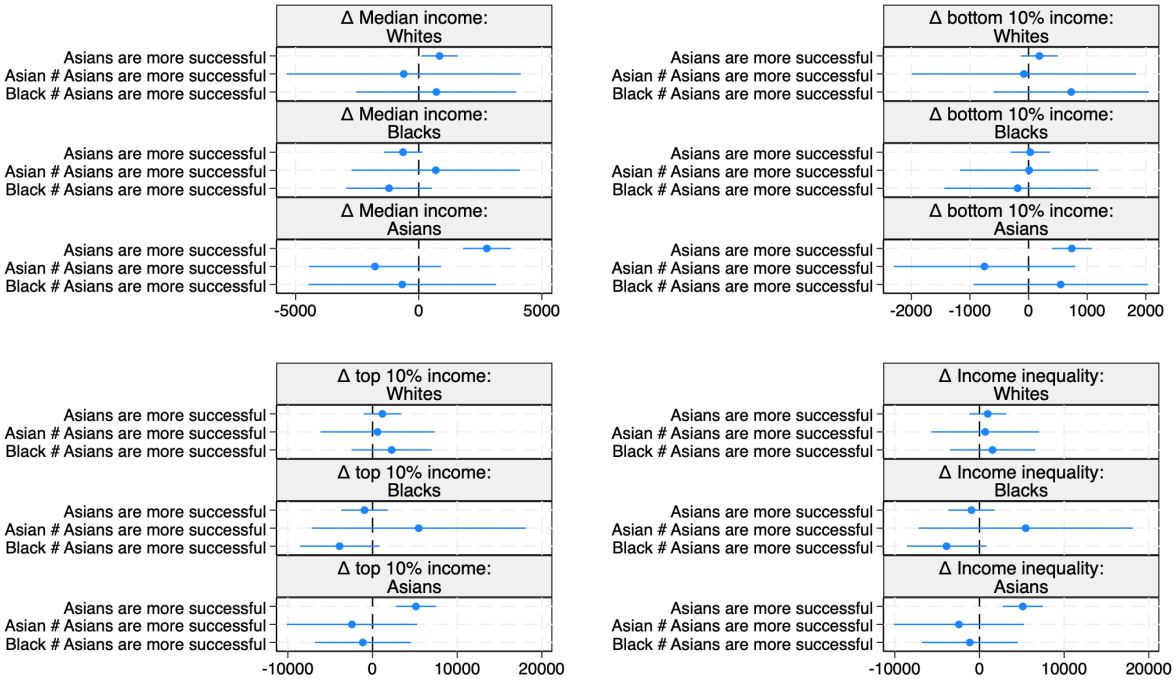


Fig 1A: The belief that Asians work harder and are more successful than other ethnic minorities

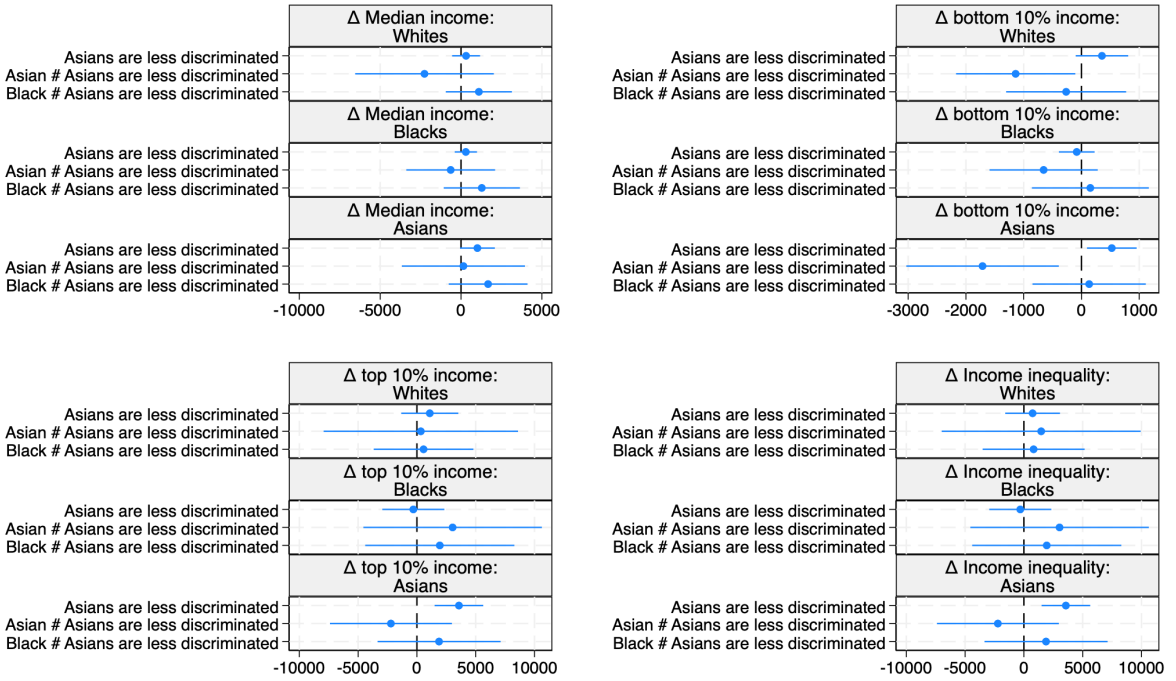


Fig 1B: The belief that Asians are less discriminated against compared to other ethnic minorities

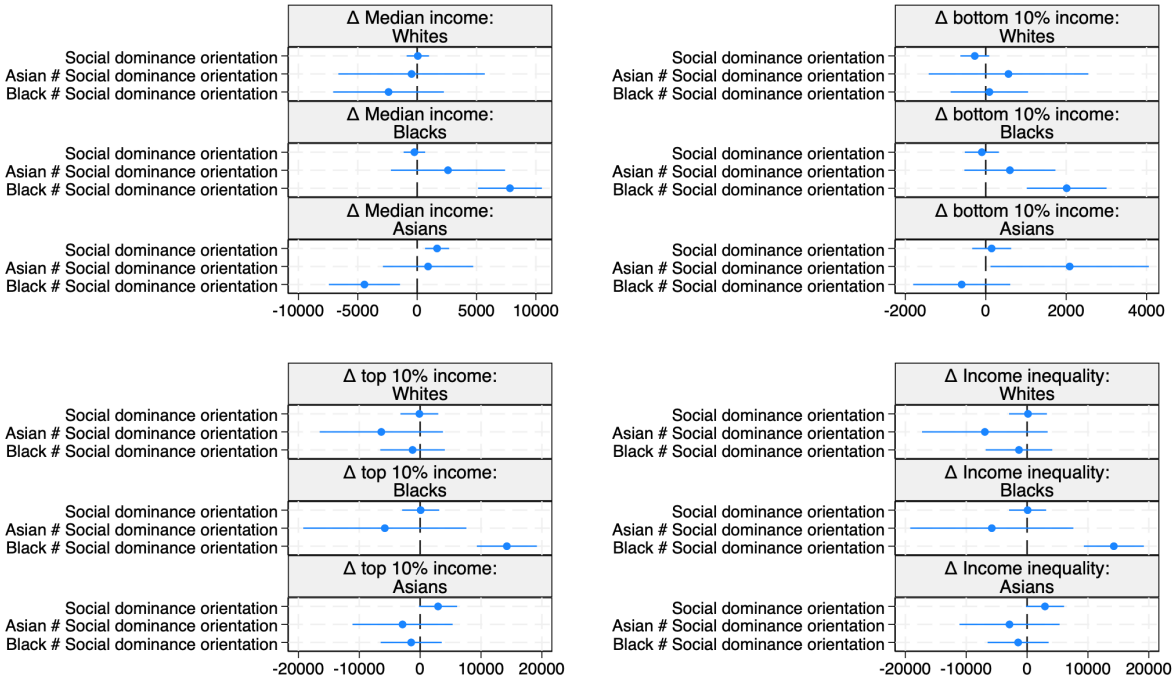


Fig 1C: Social dominance orientation

Note: The above coefficients are based on a fully interacted model, i.e., respondent's race##model minority beliefs. The ethnicity's reference group is Whites. Regression estimates are reported in Tables 7A-9A in the Online Appendix.

Table 7A: Delta median income estimates by respondent's race – OLS regressions

	Delta (Δ) median income: Whites	Delta (Δ) median income: Blacks	Delta (Δ) median income: Asians
Respondent's race: Asian	5551.4***	-1527.8	4046.3*
	(1352.7)	(1325.8)	(1571.7)
Respondent's race: Black	1388.1	97.19	-4387.0*
	(1858.9)	(1091.4)	(1821.8)
Asians are more successful	846.8*	-637.0	2766.4***
	(365.2)	(386.9)	(480.7)
Asian # Asians are more successful	-608.4	695.0	-1776.1
	(2357.2)	(1699.1)	(1329.9)
Black # Asians are more successful	716.3	-1205.7	-669.3
	(1615.3)	(863.7)	(1891.4)
Asians are less discriminated	308.9	302.7	1021.8
	(428.5)	(343.0)	(534.5)
Asian # Asians are less discriminated	-2253.4	-636.8	135.4
	(2131.5)	(1361.9)	(1881.4)
Black # Asians are less discriminated	1112.8	1285.4	1667.4
	(1015.3)	(1170.2)	(1206.9)
Social dominance orientation	58.44	-229.3	1680.4**
	(466.9)	(450.2)	(503.3)
Asian # Social dominance orientation	-468.7	2597.6	922.5
	(3060.2)	(2385.2)	(1887.4)
Black # Social dominance orientation	-2405.4	7817.9***	-4435.0**
	(2314.2)	(1332.0)	(1488.2)
Observations	803	803	803
Adjusted R^2	0.089	0.088	0.125

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Dependent variables are the individual's estimated median income *minus* the actual median income reported in the 2021 American Community Survey (ACS) for each race. All regressions include the same control variables as in Table 2. Clustered standard errors at the State level are in parentheses. Because of attrition, we use inverse probability weighting obtained from the attrition regression as weight in all regressions.

Table 8A: Delta bottom and top 10% income estimates by respondent's race – OLS regressions

	Delta (Δ) bottom 10%: Whites	Delta (Δ) bottom 10%: Blacks	Delta (Δ) bottom 10%: Asians	Delta (Δ) top 10%: Whites	Delta (Δ) top 10%: Blacks	Delta (Δ) top 10%: Asians
Respondent's race: Asian	2637.5***	-501.0	2338.0**	2855.5	-7482.7	-2175.2
	(588.9)	(632.5)	(678.8)	(4536.9)	(4793.1)	(3356.8)
Respondent's race: Black	2279.1***	1072.8	804.3	1340.1	-1015.0	-5489.7
	(572.8)	(599.0)	(657.5)	(3089.8)	(4129.2)	(3268.1)
Asians are more successful	185.3	28.53	738.2***	1163.1	-945.4	5116.6***
	(156.2)	(166.4)	(169.1)	(1097.8)	(1363.6)	(1173.6)
Respondent's race: Asian #	-77.71	9.313	-752.1	599.0	5458.1	-2427.6
Asians are more successful	(947.5)	(584.5)	(768.1)	(3346.4)	(6275.0)	(3822.0)
Respondent's race: Black #	726.7	-186.6	548.5	2263.5	-3891.4	-1141.3
Asians are more successful	(657.3)	(620.4)	(740.3)	(2352.3)	(2328.2)	(2814.9)
Asians are less discriminated	351.8	-79.14	521.5*	1094.5	-303.7	3554.3**
	(225.4)	(154.0)	(213.6)	(1203.8)	(1307.1)	(1023.9)
Respondent's race: Asian #	-1135.5*	-657.4	-1708.6*	328.9	3031.6	-2198.1
Asians are less discriminated	(513.2)	(465.9)	(656.8)	(4100.9)	(3765.3)	(2564.3)
Respondent's race: Black #	-263.4	151.8	136.3	562.2	1942.5	1894.1
Asians are less discriminated	(515.2)	(502.4)	(486.2)	(2102.4)	(3148.2)	(2603.3)
Social dominance orientation	-273.0	-96.86	146.9	-123.6	90.13	2940.7
	(178.0)	(210.0)	(240.2)	(1539.8)	(1511.9)	(1556.1)
Respondent's race: Asian #	564.7	600.9	2085.3*	-6379.3	-5797.6	-2892.9
Social dominance orientation	(984.7)	(561.9)	(977.2)	(5028.7)	(6653.7)	(4084.5)
Respondent's race: Black #	90.26	2012.3***	-598.0	-1241.3	14253.1***	-1460.5
Social dominance orientation	(478.6)	(492.1)	(598.8)	(2629.5)	(2446.4)	(2488.7)
Observations	803	803	803	803	803	803
Adjusted R^2	0.053	0.080	0.079	0.032	0.042	0.056

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Dependent variables are the individual's estimated bottom (top) 10% income *minus* the actual bottom (top) 10% income reported in the 2021 American Community Survey (ACS) for each race. All regressions include the same control variables as in Table 2. Clustered standard errors at the State level are in parentheses. Because of attrition, we use inverse probability weighting obtained from the attrition regression as weight in all regressions.

Table 9A: Delta income inequality estimates by respondent's race – OLS regressions

	Delta (Δ) income inequality: Whites	Delta (Δ) income inequality: Blacks	Delta (Δ) income inequality: Asians
Respondent's race: Asian	217.9	-6981.7	-4513.2
	(4539.8)	(4903.6)	(3532.9)
Respondent's race: Black	-939.0	-2087.8	-6293.9
	(2942.8)	(4004.5)	(3140.1)
Asians are more successful	977.8	-973.9	4378.4***
	(1081.2)	(1375.0)	(1123.0)
Asian # Asians are more successful	676.7	5448.8	-1675.5
	(3162.0)	(6376.7)	(3814.6)
Black # Asians are more successful	1536.8	-3704.8	-1689.8
	(2502.9)	(2099.9)	(2696.7)
Asians are less discriminated	742.7	-224.5	3032.8**
	(1154.6)	(1295.4)	(982.3)
Respondent's race: Asian # Asians are less discriminated	1464.4	3689.1	-489.5
	(4195.5)	(4006.7)	(2940.0)
Respondent's race: Black # Asians are less discriminated	825.6	1790.7	1757.8
	(2151.7)	(3089.7)	(2683.5)
Social dominance orientation	149.5	187.0	2793.8
	(1540.8)	(1488.5)	(1466.7)
Respondent's race: Asian # Social dominance orientation	-6944.0	-6398.5	-4978.2
	(5123.8)	(6900.8)	(4034.5)
Respondent's race: Black # Social dominance orientation	-1331.6	12240.8***	-862.5
	(2714.0)	(2432.1)	(2437.0)
Observations	803	803	803
Adjusted R^2	0.028	0.039	0.048

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Dependent variables are the individual's estimated income inequality (top 10%-bottom 10%) *minus* the actual income inequality (top 10%-bottom 10%) reported in the 2021 American Community Survey (ACS) for each race. All regressions include the same control variables as in Table 2. The reference group here is the Respondent's race: White. Clustered standard errors at the State level are in parentheses. Because of attrition, we use inverse probability weighting obtained from the attrition regression as weight in all regressions.

Figures 2A-2C: Predictive margins of model minority beliefs and social dominance orientation on sensitivity in the Go/No Go game by photo conditions

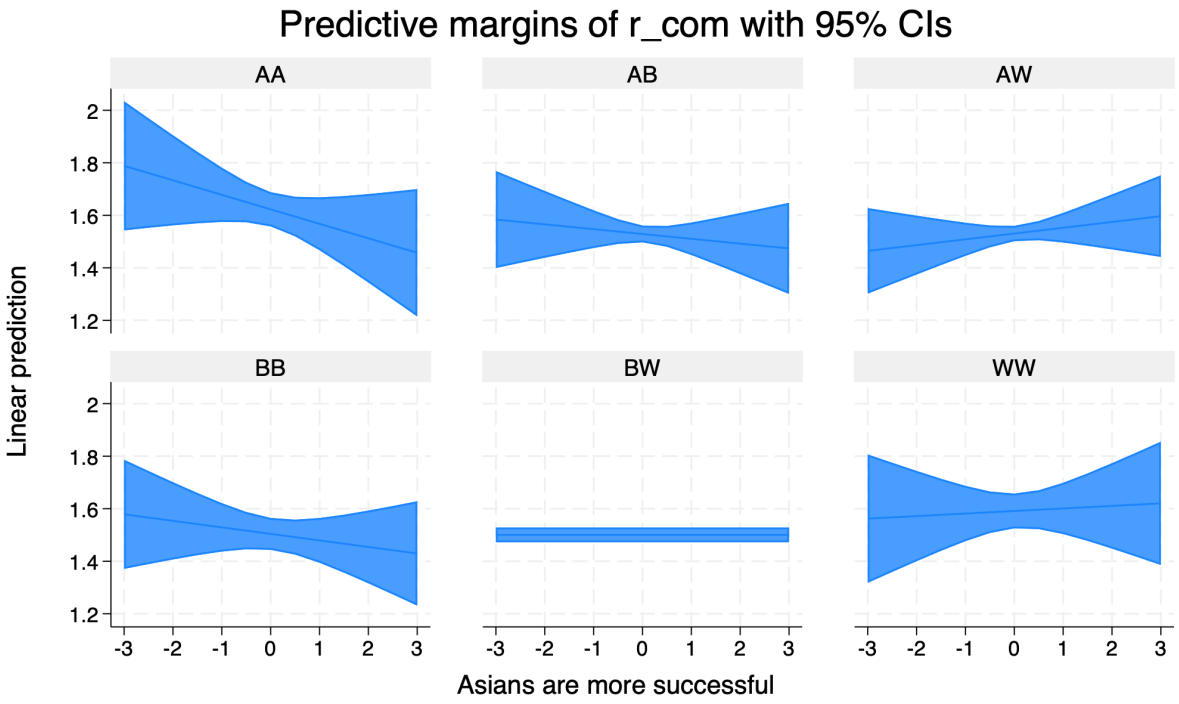


Fig 2A: Predictive margins of the belief that "Asians are more successful" on sensitivity

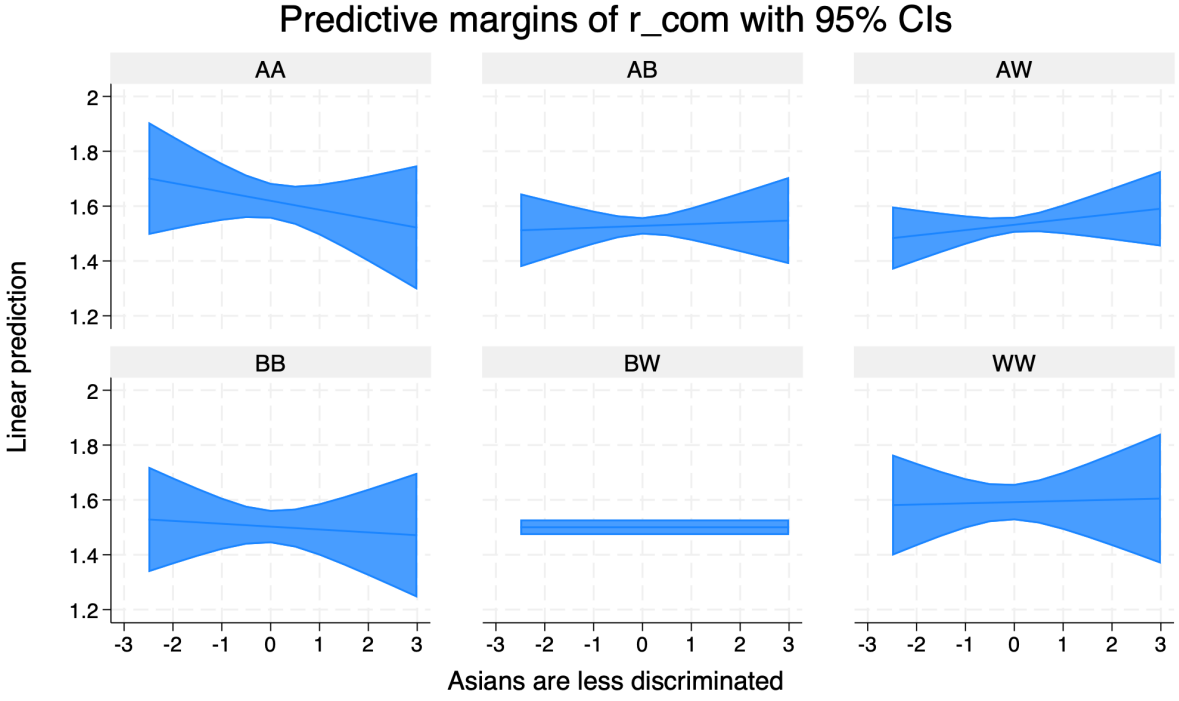


Fig 2B: Predictive margins of the belief that "Asians are less discriminated against" on sensitivity

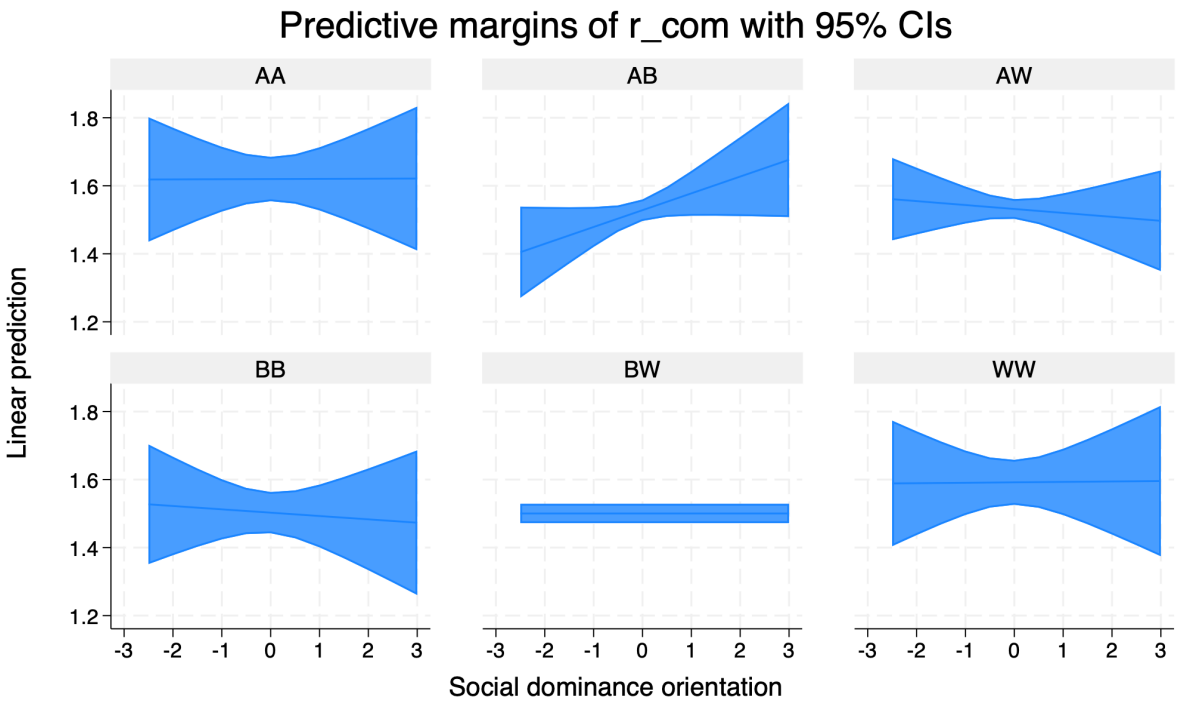


Fig 2C: Predictive margins of social dominance orientation on sensitivity

Note: The estimated marginal effects are based on Column 2 of Table 3's specification. AA = Asian vs. Asian photos; AB = Asian vs. Black photos; AW = Asian vs. White photos; BB = Black vs. Black photo; BW = Black vs. White photo; and WW = White vs. White photos.

Table 10A: Estimates of sensitivity and response bias in the Go/No Go game by respondent's race – Individual fixed effects regressions

	Sensitivity (d'): Whites sample	Sensitivity (d'): Asian sample	Sensitivity (d'): Black sample	Response bias (c): White sample	Response bias (c): Asian sample	Response bias (c): Black sample
AA	0.120**	0.129	0.226	0.0702*	0.145	0.270*
	(0.0438)	(0.147)	(0.152)	(0.0312)	(0.144)	(0.106)
AB	0.0464	-0.0554	0.0916	0.0877***	0.0813	0.160
	(0.0277)	(0.115)	(0.0994)	(0.0205)	(0.0921)	(0.0825)
AW	0.0380	-0.103	0.148	0.0642***	-0.0906	0.147*
	(0.0254)	(0.114)	(0.0951)	(0.0177)	(0.0788)	(0.0692)
BB	-0.000498	-0.0862	0.200	-0.0160	0.167	0.193*
	(0.0396)	(0.192)	(0.129)	(0.0220)	(0.121)	(0.0868)
WW	0.125**	-0.0328	0.186	0.0259	0.0651	0.150
	(0.0451)	(0.138)	(0.143)	(0.0295)	(0.158)	(0.103)
AA # Asians are more successful	-0.0438	-0.135	-0.0885	-0.0102	-0.0369	-0.191
	(0.0443)	(0.144)	(0.179)	(0.0341)	(0.122)	(0.127)
AB # Asians are more successful	-0.0227	0.0656	-0.0510	-0.00381	0.202*	-0.00191
	(0.0328)	(0.133)	(0.125)	(0.0225)	(0.0829)	(0.107)
AW # Asians are more successful	0.0267	-0.00509	0.000476	0.0142	0.183*	-0.0138
	(0.0287)	(0.129)	(0.108)	(0.0187)	(0.0809)	(0.0972)
BB # Asians are more successful	-0.0382	0.203	-0.0629	-0.0402*	-0.0148	-0.0630
	(0.0353)	(0.227)	(0.124)	(0.0189)	(0.157)	(0.0952)
WW # Asians are more successful	-0.0176	0.282*	0.143	0.0174	0.0819	0.0915
	(0.0445)	(0.119)	(0.155)	(0.0278)	(0.110)	(0.101)
AA # Asians are less discriminated	-0.0194	0.0483	-0.142	-0.0265	0.112	-0.125
	(0.0437)	(0.252)	(0.148)	(0.0335)	(0.172)	(0.0744)
AB # Asians are less discriminated	0.0149	0.0696	-0.0927	0.00786	0.105	-0.0301
	(0.0303)	(0.111)	(0.0998)	(0.0228)	(0.0838)	(0.0740)
AW # Asians are less discriminated	0.00994	0.0510	-0.0606	0.0107	0.0870	-0.0420
	(0.0278)	(0.0963)	(0.0833)	(0.0193)	(0.0891)	(0.0594)
BB # Asians are less discriminated	-0.00723	-0.0629	-0.0336	-0.00641	-0.0621	0.0620
	(0.0412)	(0.111)	(0.134)	(0.0229)	(0.105)	(0.0610)
WW # Asians are less discriminated	-0.0170	0.484**	-0.0479	0.0398	0.182	-0.0202
	(0.0427)	(0.158)	(0.0971)	(0.0278)	(0.188)	(0.0580)
AA # Social dominance orientation	-0.0158	0.0708	0.176	-0.00362	-0.0565	0.148
	(0.0348)	(0.233)	(0.128)	(0.0277)	(0.0763)	(0.0985)
AB # Social dominance orientation	0.0454	-0.0692	0.188	0.00668	-0.168*	0.200
	(0.0294)	(0.107)	(0.119)	(0.0238)	(0.0831)	(0.101)
AW # Social dominance orientation	-0.0154	0.00597	0.0613	-0.00493	-0.116	0.116
	(0.0271)	(0.0806)	(0.0786)	(0.0184)	(0.0697)	(0.0710)
BB # Social dominance orientation	-0.00339	-0.180	0.0777	-0.00505	0.0464	0.0499
	(0.0369)	(0.184)	(0.141)	(0.0209)	(0.115)	(0.0828)
WW # Social dominance orientation	0.000134	-0.285	0.0401	-0.0403	0.00353	0.0776
	(0.0381)	(0.159)	(0.128)	(0.0248)	(0.121)	(0.0916)
Observations	2868	270	354	2868	270	354
Individuals	478	45	59	478	45	59
Log-likelihood	-1374.3	-136.1	-187.9	-209.0	-82.26	-45.13

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. See Table 3. The reference group here is BW (Black vs. White) photos. Clustered standard errors at the State level are in parentheses.

Table 11A: Estimates of sensitivity and response bias in the Go/No Go game by Asian photo condition – Individual fixed effects regressions

	Sensitivity (d'): E Asian Condition	Sensitivity (d'): SE Asian condition	Sensitivity (d'): S Asian condition	Response bias (c): E Asian condition	Response bias (c): SE Asian condition	Response bias (c): S Asian condition
AA	0.163*	0.116	0.100	0.104	0.0753	0.0935
	(0.0664)	(0.0710)	(0.0718)	(0.0570)	(0.0451)	(0.0501)
AB	0.0267	0.0659	0.00168	0.112***	0.0793*	0.0784*
	(0.0408)	(0.0487)	(0.0432)	(0.0335)	(0.0334)	(0.0329)
AW	0.0646	0.00920	0.0147	0.0847**	0.0538	0.0592*
	(0.0362)	(0.0452)	(0.0393)	(0.0269)	(0.0329)	(0.0277)
BB	-0.0317	0.00482	0.0623	0.0185	0.0217	0.0113
	(0.0644)	(0.0670)	(0.0576)	(0.0372)	(0.0391)	(0.0397)
WW	0.0562	0.0544	0.160*	0.00328	0.0590	0.0458
	(0.0737)	(0.0679)	(0.0696)	(0.0462)	(0.0463)	(0.0463)
AA # Asians are more successful	0.00169	-0.111	-0.0842	-0.0451	0.00413	-0.0262
	(0.0576)	(0.0763)	(0.0770)	(0.0623)	(0.0378)	(0.0560)
AB # Asians are more successful	0.00528	-0.0324	-0.0308	-0.0169	0.0256	0.0264
	(0.0501)	(0.0507)	(0.0532)	(0.0443)	(0.0374)	(0.0300)
AW # Asians are more successful	0.0466	0.0321	-0.0163	0.00107	0.0272	0.0349
	(0.0389)	(0.0452)	(0.0483)	(0.0287)	(0.0335)	(0.0325)
BB # Asians are more successful	0.00487	-0.0876	-0.00628	-0.0539	-0.0352	-0.0211
	(0.0522)	(0.0504)	(0.0552)	(0.0347)	(0.0378)	(0.0328)
WW # Asians are more successful	0.0922	-0.0337	-0.0455	0.0628	-0.0423	0.0501
	(0.0612)	(0.0596)	(0.0929)	(0.0407)	(0.0460)	(0.0480)
AA # Asians are less discriminated	0.00443	-0.0646	-0.0141	0.0320	-0.0791*	-0.0285
	(0.0717)	(0.0627)	(0.0788)	(0.0572)	(0.0395)	(0.0637)
AB # Asians are less discriminated	0.00897	-0.0106	0.0242	-0.00546	-0.0339	0.0638
	(0.0498)	(0.0439)	(0.0461)	(0.0392)	(0.0301)	(0.0399)
AW # Asians are less discriminated	0.0245	-0.00989	0.0591	0.0340	-0.0208	0.0169
	(0.0394)	(0.0417)	(0.0368)	(0.0311)	(0.0262)	(0.0307)
BB # Asians are less discriminated	0.0435	-0.107	0.0459	0.0314	-0.0533	0.0365
	(0.0680)	(0.0606)	(0.0584)	(0.0430)	(0.0309)	(0.0392)
WW # Asians are less discriminated	0.0197	-0.0643	0.0618	-0.0233	0.0324	0.0963*
	(0.0702)	(0.0579)	(0.0613)	(0.0346)	(0.0426)	(0.0436)
AA # Social dominance orientation	-0.0403	-0.0133	0.0699	0.0199	-0.0275	0.00351
	(0.0588)	(0.0578)	(0.0564)	(0.0567)	(0.0444)	(0.0377)
AB # Social dominance orientation	0.0525	0.0549	0.0439	0.0224	0.00270	0.0141
	(0.0456)	(0.0488)	(0.0465)	(0.0337)	(0.0373)	(0.0403)
AW # Social dominance orientation	-0.0356	0.000775	-0.00878	-0.00294	0.0000587	-0.0157
	(0.0385)	(0.0473)	(0.0382)	(0.0266)	(0.0340)	(0.0296)
BB # Social dominance orientation	-0.0607	-0.0359	0.0552	0.0216	0.00385	-0.0273
	(0.0586)	(0.0629)	(0.0513)	(0.0364)	(0.0337)	(0.0401)
WW # Social dominance orientation	-0.110	0.0209	0.0651	-0.0553	-0.0510	-0.00399
	(0.0771)	(0.0531)	(0.0563)	(0.0530)	(0.0363)	(0.0320)
Observations	1236	1176	1194	1236	1176	1194
Individuals	206	196	199	206	196	199
Log-likelihood	-554.5	-583.6	-607.2	-175.7	-93.19	-101.1

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. See Table 3. The reference group here is BW (Black vs. White) photos. Clustered standard errors at the State level are in parentheses.

Table 12A: Estimates of sensitivity and response bias in the Go/No Go game by gender pairing – Individual fixed effects regressions

	Sensitivity (d'): different genders in image pair	Sensitivity (d'): same gender in image pair	Response bias (c): different genders in image pair	Response bias (c): same gender in image pair
AA	0.111*		0.0900**	
	(0.0459)		(0.0332)	
AB	-0.000286	0.0848	0.0901***	0.107**
	(0.0388)	(0.0446)	(0.0257)	(0.0372)
AW	-0.0000946	0.0814*	0.0712**	0.0698**
	(0.0370)	(0.0410)	(0.0273)	(0.0270)
BB	-0.0208		0.0138	
	(0.0464)		(0.0273)	
WW	0.0790		0.0434	
	(0.0479)		(0.0320)	
AA # Asians are more successful	-0.0465		-0.00537	
	(0.0479)		(0.0359)	
AB # Asians are more successful	-0.0410	-0.0244	0.0205	-0.0101
	(0.0459)	(0.0501)	(0.0258)	(0.0427)
AW # Asians are more successful	0.0207	0.0245	0.0315	0.00405
	(0.0438)	(0.0474)	(0.0291)	(0.0261)
BB # Asians are more successful	-0.0438		-0.0295	
	(0.0462)		(0.0262)	
WW # Asians are more successful	0.0114		0.0280	
	(0.0522)		(0.0306)	
AA # Asians are less discriminated	-0.0693		-0.0197	
	(0.0481)		(0.0365)	
AB # Asians are less discriminated	-0.0125	-0.00490	0.0211	-0.0117
	(0.0453)	(0.0434)	(0.0288)	(0.0417)
AW # Asians are less discriminated	0.00361	0.0285	0.0352	-0.000134
	(0.0384)	(0.0347)	(0.0279)	(0.0286)
BB # Asians are less discriminated	-0.0364		0.0177	
	(0.0525)		(0.0285)	
WW # Asians are less discriminated	-0.0126		0.0588	
	(0.0483)		(0.0305)	
AA # Social dominance orientation	0.0334		-0.00931	
	(0.0423)		(0.0314)	
AB # Social dominance orientation	0.0861*	0.0317	0.00416	0.0379
	(0.0418)	(0.0438)	(0.0279)	(0.0392)
AW # Social dominance orientation	0.0179	-0.0154	-0.0267	0.0269
	(0.0375)	(0.0460)	(0.0279)	(0.0296)
BB # Social dominance orientation	0.0236		0.00250	
	(0.0502)		(0.0284)	
WW # Social dominance orientation	0.0206		-0.0382	
	(0.0456)		(0.0301)	
Observations	2168	1438	2168	1438
Individuals	601	586	601	586
Log-likelihood	-914.8	-451.9	-451.9	-47.66

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. See Table 3. The reference group here is BW (Black vs. White) photos. Clustered standard errors at the State level are in parentheses.

Figure 3A: Photos used in Study 5

Treatment 1: Discrimination against Black

 GPA: 4, Hometown: Georgia. Decision: **Hired.**

 GPA: 3.8, Hometown: Pittsburgh. Decision: **Hired.**

 GPA: 3.7, Hometown: Florida. Decision: **Hired**.

 GPA: 3.5, Hometown: New Jersey. Decision: **Not hired**.

 GPA: 3.3, Hometown: Arizona. Decision: **Not hired**.

 GPA: 4, Hometown: Illinois. Decision: **Hired.**

 GPA: 3.8, Hometown: Kentucky. Decision: **Hired.**

 GPA: 3.7, Hometown: New York. Decision: **Not hired**.

 GPA: 3.5, Hometown: Maryland. Decision: **Not hired**.

 GPA: 3.3, Hometown: Kansas. Decision: **Not hired**.

 GPA: 4, Hometown: California. Decision: **Hired.**

 GPA: 3.8, Hometown: Virginia. Decision: **Hired.**

 GPA: 3.7, Hometown: Kansas. Decision: **Not hired**.

GPA: 3.5, Hometown: Georgia. Decision: **Not hired**.

GPA: 3.3, Hometown: Pennsylvania. Decision: **Not hired**.

GPA: 4, Hometown: Massachusetts. Decision: **Hired.**

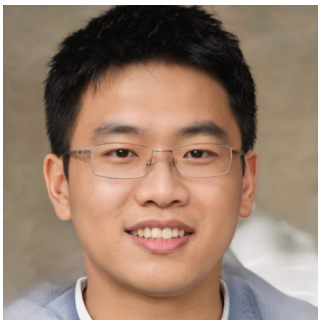
GPA: 3.8, Hometown: Michigan. Decision: **Not hired**.

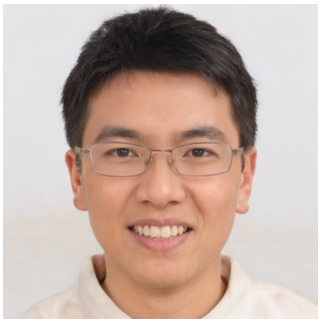

GPA: 3.7, Hometown: Utah. Decision: **Not hired**.


GPA: 3.5, Hometown: Indiana. Decision: **Not hired**.


GPA: 3.3, Hometown: California. Decision: **Not hired**.


GPA: 4, Hometown: Washington. Decision: **Hired.**


GPA: 3.8, Hometown: California. Decision: **Hired.**


GPA: 3.7, Hometown: Texas. Decision: **Hired**.

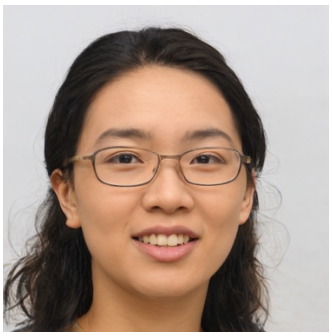

GPA: 3.5, Hometown: West Virginia. Decision: **Not hired**.


GPA: 3.3, Hometown: New York. Decision: **Not hired**.

 GPA: 4, Hometown: Michigan. Decision: **Hired.**

 GPA: 3.8, Hometown: Illinois. Decision: **Hired.**

 GPA: 3.7, Hometown: New York. Decision: **Not hired**.

 GPA: 3.5, Hometown: Florida. Decision: **Not hired**.

 GPA: 3.3, Hometown: Georgia. Decision: **Not hired**.

Treatment 2: Discrimination against Asians. In this condition, Asian males receive 40% hired decision, and Asian females receive 20% hired decision instead of Blacks. Black males now receive 60% hired decision, and Black females now receive 40% hired decision.

Treatment 3: **Discrimination against Whites.** Same as above but applying to White candidates.

SE and S Asians photos. The experimental design is 3 x 3 in terms of Asian photos, i.e., we randomise East, Southeast, and South Asian photos across the sample.

SE Asian females

SE Asian males

S Asian females

S Asian males

Figures 4A-4C: Predictive margins of model minority beliefs and social dominance orientation on relative naturalistic notice bias by treatments

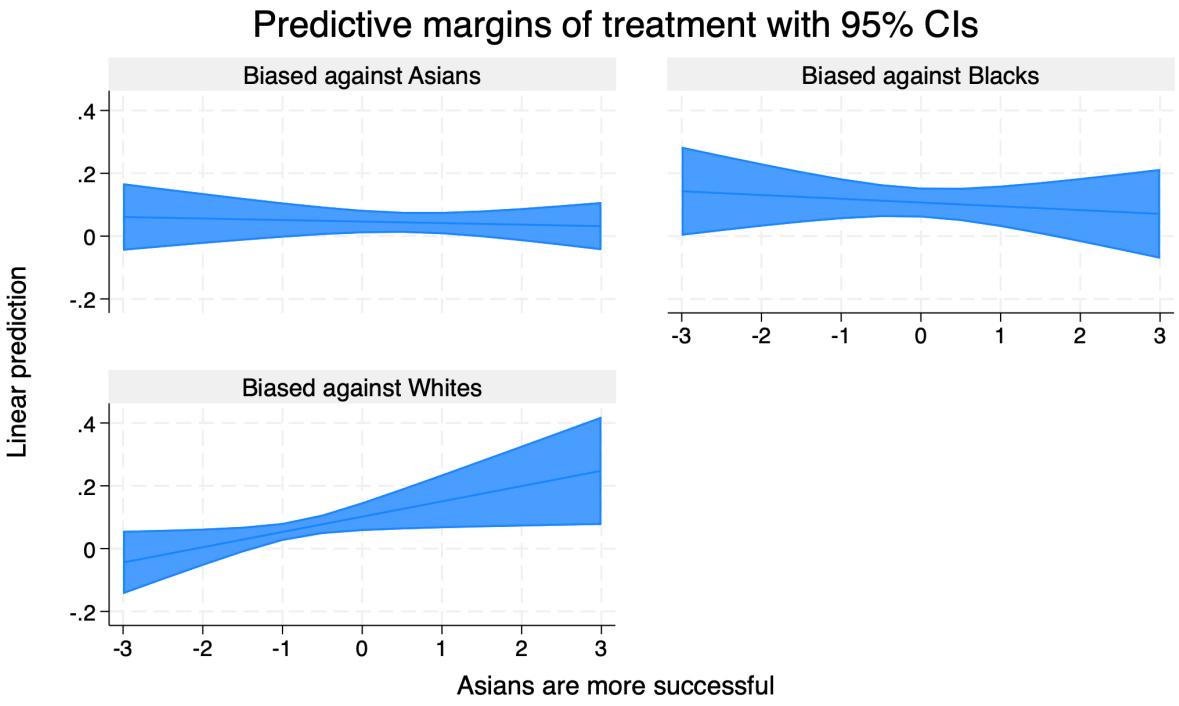


Fig 4A: Predictive margins of the belief that "Asians are more successful" on relative naturalistic notice bias

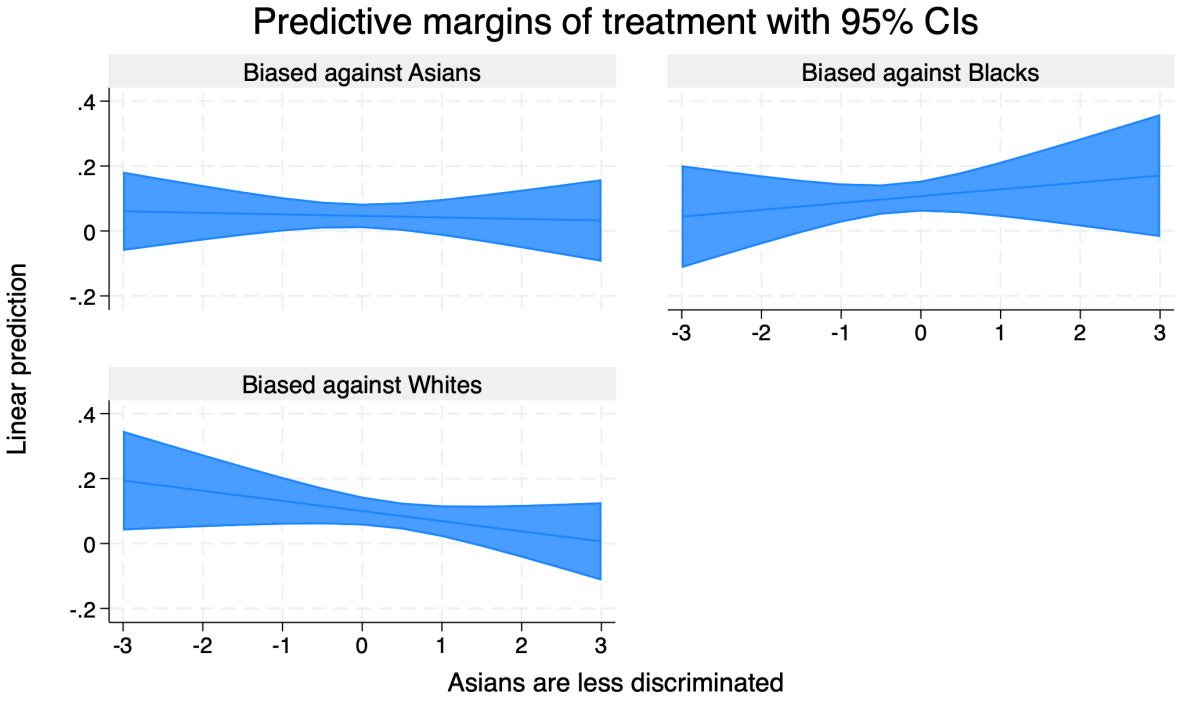


Fig 4B: Predictive margins of the belief that "Asians are less discriminated" on relative naturalistic notice bias

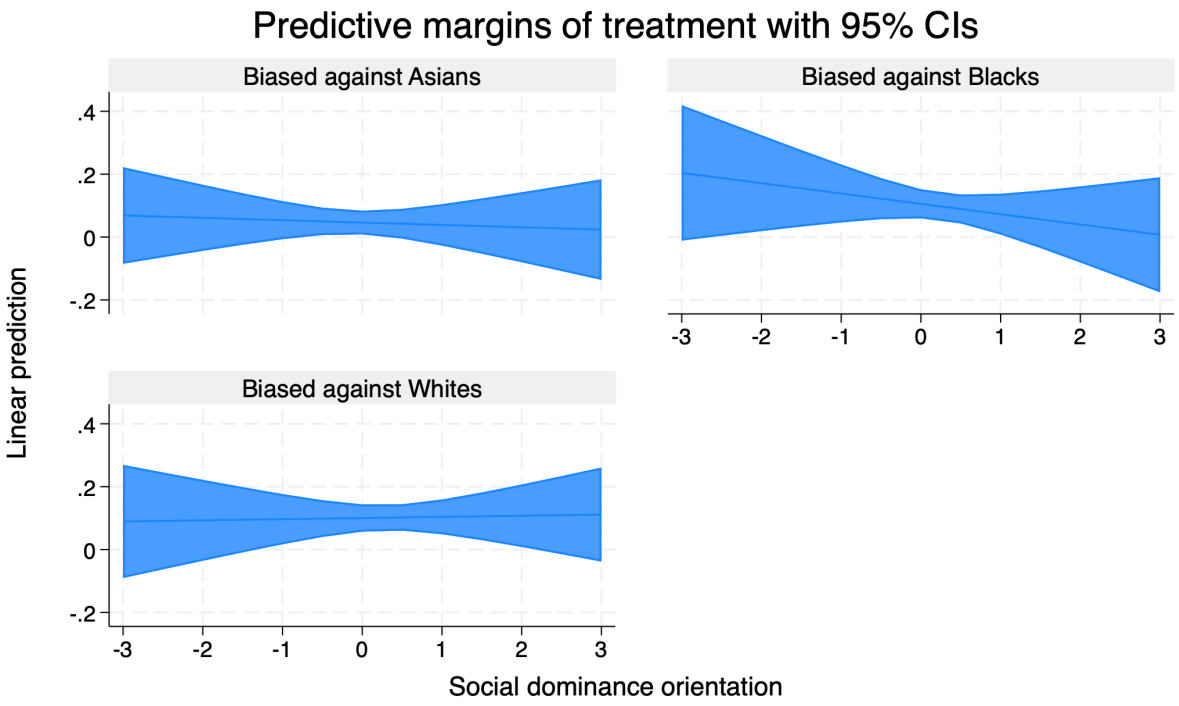


Fig 4B: Predictive margins of social dominance orientation on relative naturalistic notice bias

Table 13A: Relative naturalistic notice bias by discrimination treatment and respondent's race – OLS regressions

Dependent variable = Relative naturalistic notice bias	Discrimination against Asians treatment	Discrimination against Blacks treatment	Discrimination against Whites treatment
Respondent's race: Asian	-0.276	0.0306	0.0866
	(0.171)	(0.207)	(0.0923)
Respondent's race: Black	-0.116	-0.0177	-0.156*
	(0.0872)	(0.115)	(0.0706)
Asians are more successful (MMM1)	-0.0259	-0.00154	0.0464
	(0.0380)	(0.0300)	(0.0276)
Asian # Asians are more successful	0.166	-0.124	0.0790
	(0.126)	(0.299)	(0.0442)
Black # Asians are more successful	-0.0193	-0.120	-0.00292
	(0.0621)	(0.136)	(0.0634)
Asians are less discriminated (MMM2)	-0.0157	0.0113	-0.00144
	(0.0258)	(0.0371)	(0.0305)
Asian # Asians are less discriminated	-0.115	0.00308	0.173
	(0.0634)	(0.119)	(0.122)
Black # Asians are less discriminated	-0.0335	-0.0250	-0.0643
	(0.0884)	(0.0968)	(0.0423)
Social dominance orientation (SDO)	0.0112	0.0000887	-0.0132
	(0.0362)	(0.0559)	(0.0298)
Asian # Social dominance orientation	-0.190	-0.00441	-0.194
	(0.107)	(0.152)	(0.140)
Black # Social dominance orientation	-0.0924	0.0168	-0.120
	(0.116)	(0.0979)	(0.107)
Observations	258	257	262
Adjusted R^2	0.007	-0.026	0.111

Note: * $p < 0.05$. Relative naturalistic notice bias is coded as 0 if participants did not mention bias against the group that received hiring discrimination. It has a value of +1 if participants correctly mentioned bias against the category disfavored in the experimental condition, and a value of -1 if they incorrectly mentioned bias against the category favored in the experimental condition. Same control variables are as in Table 3. The reference group here is the Respondent's race: White. Clustered standard errors at the state level are in parentheses.

Table 14A: Absolute bias judgment and desire to investigate by discrimination treatment and respondent's race – OLS regressions

	Discrimination against Asians treatment: BAA	Discrimination against Blacks treatment: BAB	Discrimination against Whites treatment: BAW	Discrimination against Asians treatment: DTI	Discrimination against Blacks treatment: DTI	Discrimination against Whites treatment: DTI
Respondent's race: Asian	0.994**	0.391	0.726	0.607*	-0.140	-0.163
	(0.331)	(0.467)	(0.485)	(0.290)	(0.374)	(0.254)
Respondent's race: Black	0.188	0.784	-0.291	0.606*	-0.160	-0.364
	(0.402)	(0.451)	(0.450)	(0.264)	(0.384)	(0.281)
Asians are more successful (MMM1)	-0.223	-0.0675	0.0570	-0.133	-0.00762	0.124
	(0.111)	(0.107)	(0.118)	(0.0918)	(0.110)	(0.119)
Asian # Asians are more successful	0.844	-1.171	-0.271	0.662	0.237	-0.276
	(0.567)	(0.675)	(0.279)	(0.350)	(0.665)	(0.177)
Black # Asians are more successful	0.193	-0.0549	-0.498	0.0513	0.139	-0.167
	(0.208)	(0.403)	(0.443)	(0.265)	(0.357)	(0.302)
Asians are less discriminated (MMM2)	-0.0175	-0.185	0.0193	-0.0637	-0.0247	0.0409
	(0.119)	(0.111)	(0.133)	(0.145)	(0.0892)	(0.0743)
Asian # Asians are less discriminated	-0.265	0.00593	0.313	-0.0661	-0.0799	-0.285
	(0.371)	(0.344)	(0.485)	(0.350)	(0.377)	(0.311)
Black # Asians are less discriminated	0.396	-0.232	0.00623	0.148	-0.0967	0.192
	(0.263)	(0.242)	(0.236)	(0.284)	(0.286)	(0.204)
Social dominance orientation (SDO)	0.189	-0.184	0.237	-0.111	-0.103	0.175
	(0.142)	(0.166)	(0.146)	(0.163)	(0.114)	(0.117)
Asian # Social dominance orientation	-0.156	0.494	-0.140	0.376	-0.130	0.152
	(0.494)	(0.347)	(0.483)	(0.618)	(0.332)	(0.303)
Black # Social dominance orientation	0.0640	0.376	0.673	0.0333	0.252	0.391
	(0.371)	(0.371)	(0.535)	(0.321)	(0.448)	(0.255)
Observations	303	300	308	211	212	217
Adjusted R^2	0.116	0.074	0.082	0.271	0.100	0.217

Note: * $p < 0.05$, ** $p < 0.01$. Dependent variables are i) Biased against Asian candidates (BAA) in the Discrimination against Asians treatment (Column 1); ii) Biased against Black candidates (BAB) in the Discrimination against Blacks treatment (Column 2); iii) Biased against White candidates (BAW) in the Discrimination against Whites treatment (Column 3); and iv) the principal factor of the Desire to Investigate (DTI) in the last three columns. Responses to the BAA, BAB, and BAW questions range from "1.Strongly disagree" to "7.Strongly agree". DTI is standardized to have a mean of 0 and a standard deviation of 1. Same control variables are as in Table 3. Clustered standard errors at the state level are in parentheses.

Table 15A: Relative naturalistic notice bias by discrimination treatment and Asian photo condition – OLS regressions

Dependent variable = Relative naturalistic notice bias	Discrimination against Asians treatment	Discrimination against Blacks treatment	Discrimination against Whites treatment
SE Asians condition	-0.000906	-0.0534	-0.0458
	(0.0823)	(0.0579)	(0.0758)
S Asians condition	0.0315	0.0969	-0.0119
	(0.0998)	(0.0776)	(0.0765)
Asians are more successful	-0.0299	-0.180**	0.0321
	(0.0248)	(0.0531)	(0.0405)
SE Asians condition # Asians are more successful	0.0464	0.163*	0.0614
	(0.0610)	(0.0716)	(0.0491)
S Asians condition # Asians are more successful	-0.0194	0.289***	0.0257
	(0.0401)	(0.0775)	(0.0459)
Asians are less discriminated	-0.0186	0.133*	-0.00136
	(0.0404)	(0.0627)	(0.0372)
SE Asians condition # Asians are less discriminated	-0.0189	-0.147	-0.0270
	(0.0541)	(0.0853)	(0.0747)
S Asians condition # Asians are less discriminated	0.0175	-0.180*	-0.0118
	(0.0760)	(0.0875)	(0.0537)
Social dominance orientation	0.0637	-0.0522	-0.0146
	(0.0591)	(0.0717)	(0.0531)
SE Asians condition # Social dominance orientation	-0.125	0.0585	-0.000462
	(0.0690)	(0.0893)	(0.0766)
S Asians condition # Social dominance orientation	-0.119	0.0510	-0.0815
	(0.0745)	(0.0820)	(0.0733)
Observations	258	257	262
Adjusted R^2	-0.005	0.095	0.099

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Relative naturalistic notice bias is coded as 0 if participants did not mention bias against the group that received hiring discrimination. It has a value of +1 if participants correctly mentioned bias against the category disfavored in the experimental condition, and a value of -1 if they incorrectly mentioned bias against the category favored in the experimental condition. The reference group here is the East Asian photos. Same control variables are as in Table 3. Clustered standard errors at the State level are in parentheses.

Table 16A: Absolute bias judgment and desire to investigate by discrimination treatment and Asian photo condition – OLS regressions

	Discrimination against Asians treatment: BAA	Discrimination against Blacks treatment: BAB	Discrimination against Whites treatment: BAW	Discrimination against Asians treatment: DTI	Discrimination against Blacks treatment: DTI	Discrimination against Whites treatment: DTI
SE Asians condition	0.256	-0.246	-0.305	0.373	-0.0900	0.126
	(0.248)	(0.298)	(0.258)	(0.227)	(0.231)	(0.221)
S Asians condition	-0.0606	-0.0184	-0.0434	-0.0556	0.157	0.0297
	(0.295)	(0.308)	(0.342)	(0.207)	(0.252)	(0.223)
Asians are more successful	0.0805	-0.240	-0.170	0.112	-0.217	0.0707
	(0.184)	(0.217)	(0.211)	(0.134)	(0.222)	(0.217)
SE Asians condition # Asians are more successful	-0.102	-0.00648	0.336	-0.0977	0.258	-0.0156
	(0.263)	(0.235)	(0.230)	(0.221)	(0.215)	(0.246)
S Asians condition # Asians are more successful	-0.589*	0.391	0.249	-0.410	0.360	0.164
	(0.273)	(0.312)	(0.288)	(0.290)	(0.364)	(0.340)
Asians are less discriminated	0.257	-0.147	0.139	0.0876	0.00291	0.133
	(0.141)	(0.208)	(0.178)	(0.123)	(0.170)	(0.138)
SE Asians condition # Asians are less discriminated	-0.209	0.0496	-0.188	-0.144	-0.000794	-0.275
	(0.279)	(0.236)	(0.245)	(0.171)	(0.200)	(0.207)
S Asians condition # Asians are less discriminated	-0.394	-0.178	-0.103	-0.0832	-0.0883	-0.114
	(0.219)	(0.272)	(0.231)	(0.172)	(0.245)	(0.169)
Social dominance orientation	0.0302	-0.343	0.394	-0.180	-0.183	0.235
	(0.224)	(0.232)	(0.267)	(0.170)	(0.150)	(0.192)
SE Asians condition # Social dominance orientation	0.181	0.310	-0.277	0.282	0.0158	-0.101
	(0.392)	(0.301)	(0.302)	(0.222)	(0.233)	(0.248)
S Asians condition # Social dominance orientation	0.152	0.205	-0.186	-0.0717	0.315	-0.278
	(0.276)	(0.289)	(0.289)	(0.225)	(0.208)	(0.215)
Observations	303	300	308	211	212	217
Adjusted R^2	0.122	0.083	0.077	0.289	0.105	0.126

Note: * $p < 0.05$. Dependent variables are i) Biased against Asian candidates (BAA) in the Discrimination against Asians treatment (Column 1); ii) Biased against Black candidates (BAB) in the Discrimination against Blacks treatment (Column 2); iii) Biased against White candidates (BAW) in the Discrimination against Whites treatment (Column 3); and iv) the principal factor of the Desire to Investigate (DTI) in the last three columns. Responses to the BAA, BAB, and BAW questions range from "1.Strongly disagree" to "7.Strongly agree". DTI is standardized to have a mean of 0 and a standard deviation of 1. Same control variables are as in Table 3. The reference group here is the East Asian photos. Clustered standard errors at the State level are in parentheses.

Table 17A: Relative bias judgment by discrimination treatment – OLS regressions

	Discrimination against Asians treatment: BA_B	Discrimination against Asians treatment: BA_W	Discrimination against Blacks treatment: BB_A	Discrimination against Blacks treatment: BB_W	Discrimination against Whites treatment: BW_A	Discrimination against Whites treatment: BW_B
Respondent's race: Asian	0.140	0.698*	-0.0415	0.340	-0.381	-0.340
	(0.319)	(0.297)	(0.312)	(0.447)	(0.309)	(0.447)
Respondent's race: Black	-0.274	-0.0238	0.536	0.503	0.0332	-0.503
	(0.358)	(0.462)	(0.320)	(0.418)	(0.356)	(0.418)
Asians are more successful	-0.0403	-0.153	-0.0686	-0.0111	-0.0574	0.0111
	(0.120)	(0.103)	(0.0892)	(0.0732)	(0.112)	(0.0732)
Respondent's race: Asian # Asians	0.639	0.110	-1.554***	-0.643	-0.910	0.643
are more successful	(0.430)	(0.434)	(0.360)	(0.558)	(0.461)	(0.558)
Respondent's race: Black # Asians	0.0849	0.197	0.122	0.00991	0.112	-0.00991
are more successful	(0.205)	(0.237)	(0.327)	(0.283)	(0.228)	(0.283)
Asians are less discriminated	-0.0448	-0.0832	-0.145	-0.138	-0.00723	0.138
	(0.151)	(0.133)	(0.0753)	(0.0885)	(0.0846)	(0.0885)
Respondent's race: Asian # Asians	-0.501	-0.172	-0.514*	-0.190	-0.323	0.190
are less discriminated	(0.279)	(0.277)	(0.245)	(0.307)	(0.269)	(0.307)
Respondent's race: Black # Asians	0.247	0.383	-0.0387	-0.310	0.271	0.310
are less discriminated	(0.291)	(0.231)	(0.248)	(0.242)	(0.210)	(0.242)
Social dominance orientation	0.174	0.0761	-0.136	-0.221	0.0851	0.221
	(0.145)	(0.121)	(0.0894)	(0.124)	(0.106)	(0.124)
Respondent's race: Asian # Social	0.0939	-0.546	-0.0118	0.116	-0.128	-0.116
dominance orientation	(0.321)	(0.383)	(0.235)	(0.311)	(0.269)	(0.311)
Respondent's race: Black # Social	0.344	0.0321	-0.101	0.532*	-0.633*	-0.532*
dominance orientation	(0.450)	(0.284)	(0.355)	(0.234)	(0.280)	(0.234)
Observations	303	303	300	300	300	300
Adjusted R^2	-0.009	0.110	0.090	0.159	0.172	0.159

Note: $^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Dependent variables are i) BA_B = bias judgment against Asians minus bias judgment against Blacks; ii) BA_W = bias judgment against Asian minus bias judgment against Whites; iii) BB_A = bias judgment against Blacks minus bias judgment against Asians; iv) BB_W = bias judgment against Blacks minus bias judgment against Whites; v) BW_A = bias judgment against Whites minus bias judgment against Asians; and vi) BW_B = bias judgment against Whites minus bias judgment against Blacks. Same controls are as in Table 3. The reference group here is the Respondent's race: White. Clustered standard errors at the State level are in parentheses.

Table 18A: Attrition from Task 1 to Task 2A-2C – Probit regressions

	Attrition: Task1-Task2A	Attrition: Task1-Task2B	Attrition: Task1-Task2C
Asians are more successful	-0.0682	-0.0409	0.0702
	(0.0458)	(0.0451)	(0.0510)
Asians are less discriminated	0.0817	-0.0170	-0.0765
	(0.0483)	(0.0446)	(0.0515)
Social dominance orientation	0.175***	0.0740	0.114*
	(0.0518)	(0.0489)	(0.0574)
Female	0.0363	-0.225**	0.327**
	(0.0960)	(0.0873)	(0.107)
Non-binary/third gender	0.0414	-0.552	0.0314
	(0.374)	(0.370)	(0.572)
Prefer not to say	0.543	0	0
	(1.029)	(.)	(.)
Age>=25 & age<30	0		
	(.)		
Age>=30 & age<35	-0.0550	-0.0190	-0.167
	(0.181)	(0.183)	(0.222)
Age>=35 & age<40	0.0111	-0.201	0.0237
	(0.216)	(0.197)	(0.233)
Age>=40 & age<45	-0.471*	-0.199	-0.213
	(0.216)	(0.202)	(0.240)
Age>=45 & age<50	-0.392	-0.276	-0.101
	(0.218)	(0.203)	(0.252)
Age>=50 & age<55	-0.566*	-0.599**	-0.135
	(0.241)	(0.203)	(0.266)
Age>=55 & age<60	-0.919***	-0.513*	-0.186
	(0.232)	(0.199)	(0.250)
Age>=60 & age<65	-0.914***	-0.867***	-0.279
	(0.242)	(0.212)	(0.263)
Age>=65 & age<70	-0.967***	-0.565**	-0.0278
	(0.229)	(0.196)	(0.258)
Age>=70	-0.660**	-0.736***	0.221
	(0.251)	(0.221)	(0.256)
Asian	-0.465	-1.169***	0.244
	(0.262)	(0.248)	(0.294)
Black	-0.0894	-0.453*	0.0295
	(0.219)	(0.191)	(0.245)
Mixed	-0.0312	0.233	0.703***
	(0.155)	(0.143)	(0.141)
Other	-0.0147	0.0613	0.869**
	(0.320)	(0.315)	(0.313)
$10,000-$19,999	0.170	0.277	0.560
	(0.319)	(0.307)	(0.400)
$20,000-$29,999	0.00228	0.0165	0.0638
	(0.328)	(0.294)	(0.289)
$30,000-$39,999	0.142	0.0502	-0.363
	(0.310)	(0.294)	(0.304)
$40,000-$49,999	0.177	-0.281	-0.385
	(0.306)	(0.286)	(0.302)
$50,000-$59,999	0.219	-0.00608	-0.314
	(0.314)	(0.278)	(0.295)
$60,000-$69,999	-0.00695	0.145	-0.374
	(0.312)	(0.275)	(0.301)
$70,000-$79,999	0.0745	0.233	-0.436
	(0.314)	(0.300)	(0.317)
$80,000-$89,999	0.325	0.0649	-0.470
	(0.317)	(0.293)	(0.297)

$90,000-$99,999	0.0206	0.162	-0.196
	(0.336)	(0.298)	(0.322)
$100,000-$149,999	0.297	-0.128	-0.294
	(0.328)	(0.310)	(0.311)
$150,000 or more	0.180	0.111	-0.472
	(0.303)	(0.274)	(0.280)
Prefer not to say	0.224	0.204	-0.284
	(0.311)	(0.293)	(0.309)
Married	0.221	-0.0299	0.408
	(0.458)	(0.375)	(0.397)
Cohabiting	0.0691	0.143	0.0292
	(0.132)	(0.116)	(0.147)
Divorced	0.186	-0.0398	0.261
	(0.176)	(0.148)	(0.183)
Separated	0.153	0.120	-0.0934
	(0.199)	(0.165)	(0.213)
Widowed	0.390	-0.00809	0.108
	(0.384)	(0.404)	(0.432)
Prefer not to say	0.519	0.288	-0.576
	(0.334)	(0.270)	(0.339)
High school graduate	-0.00319	0	0
	(1.020)	(.)	(.)
Some undergraduate	0.505	0.761	-0.474
	(0.625)	(0.526)	(0.746)
Completed undergraduate	0.506	0.646	-0.608
	(0.626)	(0.519)	(0.746)
Some graduate	0.554	0.678	-0.484
	(0.620)	(0.516)	(0.742)
Completed graduate	0.425	0.773	-0.386
	(0.630)	(0.533)	(0.770)
Other	0.496	0.829	-0.264
	(0.628)	(0.521)	(0.746)
FT employment	1.286	0	0.0280
	(0.844)	(.)	(0.861)
PT employment	0.216*	-0.197*	-0.0538
	(0.109)	(0.0996)	(0.122)
Unemployed	0.262	0.0608	-0.260
	(0.147)	(0.126)	(0.157)
Foreign born	0.200	0.165	-0.315
	(0.202)	(0.191)	(0.245)
Republican	0.0729	-0.231	0.0619
	(0.158)	(0.147)	(0.158)
Independent	-0.395**	-0.0774	-0.0561
	(0.142)	(0.129)	(0.150)
Prefer not to say	-0.0636	-0.0250	-0.0688
	(0.115)	(0.104)	(0.123)
No political affiliation	-0.181	-0.558	0.347
	(0.532)	(0.444)	(0.531)
Constant	-0.0594	0.234	0.158
	(0.217)	(0.241)	(0.254)
Observations	1062	1072	1006

Note: $^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. The dependent variable is an indicator variable that takes a value of 1 if the participant did not return to complete the relevant Task 2. All regressions include State fixed effects. Clustered standard errors at the State level are reported in parentheses.

Table 19A: Adjusted p-values for the MMM1 estimates across studies

Dependent variables	Coef.	S.E.	p-value	Westfall and Young p-value	Bonferroni p-value	Sidak-Holm p-value
Study 3 (Tables 4A-6A)						
White's median income	803.3627	426.9148	0.066	0.064	0.066	0.066
Black's median income	*-805.892*	*329.3827*	*0.018*	*0.048*	*0.037*	*0.037*
Asian's median income	*2584.522*	*394.9436*	*0.000*	*0.000*	*0.000*	*0.000*
White's bottom 10% income	295.325	140.504	0.041	0.072	0.083	0.081
Black's bottom 10% income	20.862	128.796	0.872	0.879	0.872	0.872
Asian's bottom 10% income	*795.634*	*161.291*	*0.000*	*0.000*	*0.000*	*0.000*
White's top 10% income	1492.537	895.429	0.103	0.207	0.205	0.195
Black's top 10% income	-1252.363	1204.208	0.304	0.308	0.304	0.304
Asian's top 10% income	*4955.925*	*920.233*	*0.000*	*0.000*	*0.000*	*0.000*
Study 5 (Tables 4 and 5)						
Relative naturalistic notice bias - DAA	-0.015	0.020	0.446	0.621	0.857	0.674
Absolute bias judgment (BAA) - DAA	-0.148	0.116	0.209	0.453	0.626	0.505
Desire to investigate - DAA	-0.063	0.078	0.429	0.621	0.857	0.674
Relative naturalistic notice bias - DAB	-0.014	0.029	0.626	0.829	1.000	0.860
Absolute bias judgment (BAB) - DAB	-0.096	0.098	0.335	0.644	1.000	0.706
Desire to investigate - DAB	0.031	0.096	0.744	0.829	1.000	0.860
Relative naturalistic notice bias - DAW	*0.063*	*0.025*	*0.017*	*0.078*	*0.050*	*0.049*
Absolute bias judgment (BAW) - DAW	0.010	0.116	0.934	0.929	0.934	0.934
Desire to investigate - DAW	0.101	0.102	0.329	0.503	0.658	0.550

Note: The table reports various adjusted p-values for the estimated coefficients of MMM1 in regression analysis across all studies. DAA = Discrimination against Asians treatment in Study 5; DAB = Discrimination against Blacks treatment in Study 5; and DAW = Discrimination against Whites treatment in Study 5. Number in italics represent coefficients that continue to be statistically significant even after adjusting for multiple comparisons.

Table 20A: Adjusted p-values for the Go/No Go treatment estimates

Independent variables	Coef.	S.E.	p-value	Westfall and Young p-value	Bonferroni p-value	Sidak-Holm p-value
Table 3, Column 1 (*d'* prime)						
AA	*0.122*	*0.040*	*0.002*	*0.000*	*0.011*	*0.011*
AB	0.028	0.025	0.276	0.078	0.552	0.476
AW	0.033	0.023	0.154	0.019	0.462	0.394
BB	0.007	0.037	0.860	0.747	0.860	0.860
WW	*0.094*	*0.040*	*0.019*	*0.000*	*0.075*	*0.073*
Table 3, Column 3 (*c*-index)						
AA	0.029	0.029	0.326	0.449	0.978	0.694
AB	*0.050*	*0.020*	*0.011*	*0.004*	*0.055*	*0.053*
AW	0.012	0.017	0.469	0.504	0.978	0.695
BB	0.017	0.022	0.447	0.504	0.978	0.695
WW	0.045	0.026	0.088	0.073	0.354	0.309

Note: The table reports various adjusted p-values for the estimated coefficients of the Go/No Go treatments. The reference group is BW (Black versus White).

Table 21A: Estimates of sensitivity and response bias in the Go/No Go game: A test of non-linearity

	Sensitivity (d')	Response bias (c)
AA	0.191***	0.105***
	(0.0414)	(0.0284)
AB	0.0194	0.0857***
	(0.0241)	(0.0165)
AW	0.0432	0.0581***
	(0.0242)	(0.0166)
BB	0.0499	0.0281
	(0.0381)	(0.0261)
WW	0.124**	0.0345
	(0.0416)	(0.0285)
Asians are more successful (MMM1): Top 25%	0.103	0.0418
	(0.0611)	(0.0451)
Asians are less discriminated (MMM2) : Top 25%	-0.206**	-0.0991*
	(0.0631)	(0.0467)
Social dominance orientation (SDO) : Top 25%	-0.227***	-0.0407
	(0.0661)	(0.0489)
AA # Asians are more successful: Top 25%	-0.184**	-0.0332
	(0.0696)	(0.0477)
AB # Asians are more successful: Top 25%	-0.0857*	-0.0247
	(0.0411)	(0.0281)
AW # Asians are more successful: Top 25%	-0.0357	-0.0110
	(0.0413)	(0.0283)
BB # Asians are more successful: Top 25%	-0.135*	-0.0827
	(0.0649)	(0.0445)
WW # Asians are more successful: Top 25%	-0.0949	-0.00370
	(0.0667)	(0.0457)
AA # Asians are less discriminated: Top 25%	-0.109	-0.0636
	(0.0709)	(0.0486)
AB # Asians are less discriminated: Top 25%	0.0341	-0.00151
	(0.0420)	(0.0288)
AW # Asians are less discriminated: Top 25%	-0.0214	0.00396
	(0.0419)	(0.0287)
BB # Asians are less discriminated: Top 25%	-0.0126	0.0497
	(0.0666)	(0.0456)
WW # Asians are less discriminated: Top 25%	-0.0976	0.0376
	(0.0725)	(0.0497)
AA # Social dominance orientation: Top 25%	0.0222	0.0455
	(0.0716)	(0.0491)
AB # Social dominance orientation: Top 25%	0.0827*	0.0423
	(0.0417)	(0.0286)
AW # Social dominance orientation: Top 25%	0.0141	0.0256
	(0.0417)	(0.0286)
BB # Social dominance orientation: Top 25%	-0.0315	-0.0203
	(0.0681)	(0.0466)
WW # Social dominance orientation: Top 25%	0.0428	-0.0270
	(0.0675)	(0.0463)
Male vs. Male	-0.00290	-0.00369
	(0.0212)	(0.0146)
Observations	3606	3606
Individuals	601	601
Log-likelihood	-3690.0	-1991.7

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Top 25% is a dummy variable that takes a value of 1 if the corresponding variable's score is in the top 25% of the distribution. Same control variables and notes as in Table 3.

Table 22A: Relative naturalistic notice bias, absolute bias judgment, and desire to investigate by discrimination treatment: A test of non-linearity

	Relative naturalistic notice bias	BAA	BAB	BAW	DTI
Discrimination against Blacks	0.0620	-0.112	0.654***	0.200	0.282
treatment	(0.0491)	(0.148)	(0.138)	(0.116)	(0.282)
Discrimination against Whites	0.0317	-0.361	-0.212	0.371*	0.0229
treatment	(0.0483)	(0.188)	(0.145)	(0.165)	(0.295)
Asians are more successful	-0.00430	-0.182	-0.224	-0.157	0.354
(MMM1)	(0.0373)	(0.238)	(0.212)	(0.200)	(0.310)
Discrimination against Blacks #	-0.0161	-0.0459	-0.443	-0.207	-1.008*
Asians are more successful	(0.0724)	(0.362)	(0.222)	(0.277)	(0.454)
Discrimination against Whites #	0.138	0.0911	0.154	0.414	-0.0872
Asians are more successful	(0.0970)	(0.322)	(0.317)	(0.317)	(0.490)
Asians are less discriminated	-0.00137	0.237	0.171	0.148	0.246
(MMM2)	(0.0514)	(0.151)	(0.187)	(0.138)	(0.395)
Discrimination against Blacks #	-0.00312	-0.153	-0.354	-0.150	-0.338
Asians are less discriminated	(0.0779)	(0.231)	(0.226)	(0.239)	(0.511)
Discrimination against Whites #	-0.0785	-0.193	0.0149	0.0547	-0.144
Asians are less discriminated	(0.0554)	(0.230)	(0.256)	(0.200)	(0.469)
Social dominance orientation	-0.0323	0.223	0.142	0.231	-0.123
(SDO)	(0.0442)	(0.181)	(0.182)	(0.166)	(0.292)
Discrimination against Blacks #	0.000424	-0.344	-0.292	-0.0608	0.275
Social dominance orientation	(0.0554)	(0.299)	(0.258)	(0.263)	(0.413)
Discrimination against Whites #	0.0360	0.196	0.152	0.128	0.421
Social dominance orientation	(0.105)	(0.291)	(0.251)	(0.318)	(0.462)
Observations	777	911	911	911	640
Adjusted R^2	0.043	0.078	0.119	0.072	0.107

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Top 25% is a dummy variable that takes a value of 1 if the corresponding variable's score is in the top 25% of the distribution. Same control variables and notes as in Table 4.

Appendix B: A Simple Game Model on How Model Minority Stereotypes Affect Attention to Discrimination against Asians and Support for Them

We provide a simple theoretical framework to facilitate understanding how the "model minority myth" as a positive stereotype may decrease the attention to the inequality and discrimination experienced by Asian Americans and hence reduce support for this racial minority group. The model is borrowed and slightly modified from Bursztyn et al. (2020), and thus also related to Bénabou and Tirole (2006), Bénabou and Tirole (2011), Jia and Persson (2019), Ali and Bénabou (2020), Besley et al. (2023), and Golman (2023).

In a society, there exists a continuum of agents heterogeneous in their inclination to pay attention to inequality and discrimination experienced by racial minorities and support them, in particular Asian descendants in the context of our study, and in persuadability by some (positive) stereotypical narrative about Asians such as the "model minority myth." For simplicity, let us call the agents who are prone to paying attention to the inequality of Asians and supporting them as the tolerant type, and those who are not as the intolerant type. The tolerant type is denoted as $t = 1$, and the intolerant type $t = 0$. Tolerance and persuadability are independent of each other. The probability of an agent to be the tolerant type is $p \in (0, 1)$, and the probability of an agent to be persuadable is $q \in (0, 1)$. To begin with, two agents are randomly drawn from the society: one is a "sender," and the other is a "receiver."

Firstly, let us consider a persuadable sender. In the first scenario, there does not exist a stereotypical narrative about Asians in the society. The tolerant and persuadable sender does not ignore inequality and discrimination experienced by Asians or reduce support for them, i.e., $a = 0$, while the intolerant and persuadable sender does it or takes this action, i.e., $a = 1$. However, in the second scenario, a stereotypical narrative about Asians is prevalent in the society. The tolerant and persuadable sender is persuaded by the narrative and hence ignores inequality and discrimination experienced by Asians and reduces support for them, and the intolerant and persuadable sender also does it as previously.

We then consider a non-persuadable sender. Suppose that the non-persuadable sender obtains a utility of social capital proportional to the belief of the receiver that they share the same type of tolerance, i.e., both tolerant or both intolerant. For instance, the sender acquires the maximum of such a utility $\overline{u}$ if the receiver believes with probability 1 that the sender is in the same type of tolerance as her. Nonetheless, the sender gets the minimum of this utility $\underline{u}$ such that $\underline{u} < \overline{u}$, if the receiver believes with probability 1 that the sender is in the different type of tolerance. Since the probability of being paired with a tolerant receiver is p, the sender has a utility of social capital $u_{t_1} = p\overline{u} + (1-p)\underline{u}$ if the receiver believes her as tolerant with probability 1. Likewise, the sender has a utility of social capital $u_{t_0} = p\underline{u} + (1-p)\overline{u}$ if the receiver believes her as intolerant with probability 1. We assume that the sender's such a utility of being believed as tolerant with probability 1 is strictly larger than that of being believed as intolerant with probability 1, namely $u_{t_1} > u_{t_0}$, which implies $p > 0.5$. Then, the sender's expected utility of social capital when the receiver believes her as tolerant with probability π is $u_t(\pi) = \pi u_{t_1} + (1-\pi)u_{t_0}$.

Moreover, the non-persuadable sender acquires another utility of social expression $v > 0$ through taking an action consistent with her type of tolerance: the tolerant (i.e., $t = 1$) and non-persuadable sender obtains such a utility v if she chooses not to ignore inequality and discrimination experienced by Asians or reduce support for them, i.e., $a = 0$, and obtains 0

otherwise; the intolerant (i.e., $t = 0$) and non-persuadable sender gets such a utility v if she ignores the inequality of Asians and reduces support for them, i.e., $a = 1$, and 0 otherwise. Thus the total utility function of the non-persuadable sender is specified as follows:

$$u_t(a, \pi) = v \cdot \mathbf{1}_{\{t=1-a\}} + \pi u_{t_1} + (1 - \pi) u_{t_0}. \quad (1)$$

Let $\pi(a)$ denote the posterior belief of the receiver that the sender is tolerant after she observes the action, a, of the sender. We then have a proposition as follows:

Proposition 1. A tolerant and non-persuadable sender has an optimal action such that

$$a^*_{t=1}\big(\pi(\cdot)\big) = \mathbf{1}_{\{\pi(0)-\pi(1)<-\frac{v}{u_{t_1}-u_{t_0}}\}}, \quad (2)$$

and an intolerant and non-persuadable sender has an optimal action such that

$$a^*_{t=0}\big(\pi(\cdot)\big) = \mathbf{1}_{\{\pi(0)-\pi(1)<\frac{v}{u_{t_1}-u_{t_0}}\}}. \quad (3)$$

We assume that it is more likely for the receiver to believe the sender as tolerant if the latter does not ignore the inequality of Asians or reduce support for them than if she takes such an action, i.e., $\pi(0) > \pi(1)$. Then, **Proposition 1** means that the best strategy of the tolerant and non-persuadable sender is never to ignore the inequality of Asians or reduce support for them, while the best strategy of the intolerant and non-persuadable sender is to ignore the inequality of Asians or reduce support for them if her utility gain of social expression is large relative to her utility loss of social capital by taking such an action.

Now, let us consider two different games. In the *No stereotypical Narrative (No Nar)* game, the receiver believes the sender ignoring the inequality of Asians and reducing support for them as intolerant with probability 1 for a lack of persuasion effect, namely, $\pi(1) = 0$. In the *Narrative (Nar)* game, due to the existence of the stereotypical narrative about Asians and the potential operation of persuasion, the receiver cannot tell for certain whether the sender ignoring the inequality of Asians and reducing support for them is intolerant or (tolerant and) persuadable.

The tolerant and non-persuadable sender will not ignore the inequality of Asians or reduce support for them in either the *No Nar* game or the *Nar* game. This is her best strategy for utility maximization, as indicated by **Proposition 1**. The best strategy of the intolerant and non-persuadable sender depends on the relative size of her utility of social expression to her utility of social capital. If her utility of social expression v is relatively small, the intolerant and non-persuadable sender will not ignore the inequality of Asians or reduce support for them in either of the two games; if v is relatively large, she will do it in both games; if v falls in an intermediate interval characterized with certain parameters, in an equilibrium she will take the action in the *Nar* game while not in the *No Nar* game. This argument is formalized in the proposition below:

Proposition 2. If the following conditions hold

$$\frac{(1-p)(u_{t_1}-u_{t_0})}{1-pq} < v < \frac{p(u_{t_1}-u_{t_0})}{p+q(1-p)}, \text{ and } q < \frac{p^2}{2p^2-2p+1}, \quad (4)$$

then there is a unique equilibrium in the *Nar* game and a unique equilibrium in the *No Nar* game such that the tolerant and non-persuadable sender does not ignore the inequality of Asians or reduce support for them in either of the two games, while the intolerant and non-persuadable sender takes this action in the *Nar* game only.

Furthermore, in the equilibria characterized in **Proposition 2**, the posterior belief of the receiver that the sender ignoring the inequality of Asians and reducing support for them is intolerant is weaker in the *Nar* game than in the *No Nar* game, i.e.,

$$1 - \pi_{Nar}(1) = \frac{1-p}{1-pq} < 1 = 1 - \pi_{No\ Nar}(1). \qquad (5)$$

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